LATEST SMARTPHONE, TABLET AND APP REVIEWS

ANDROID ADVISOR

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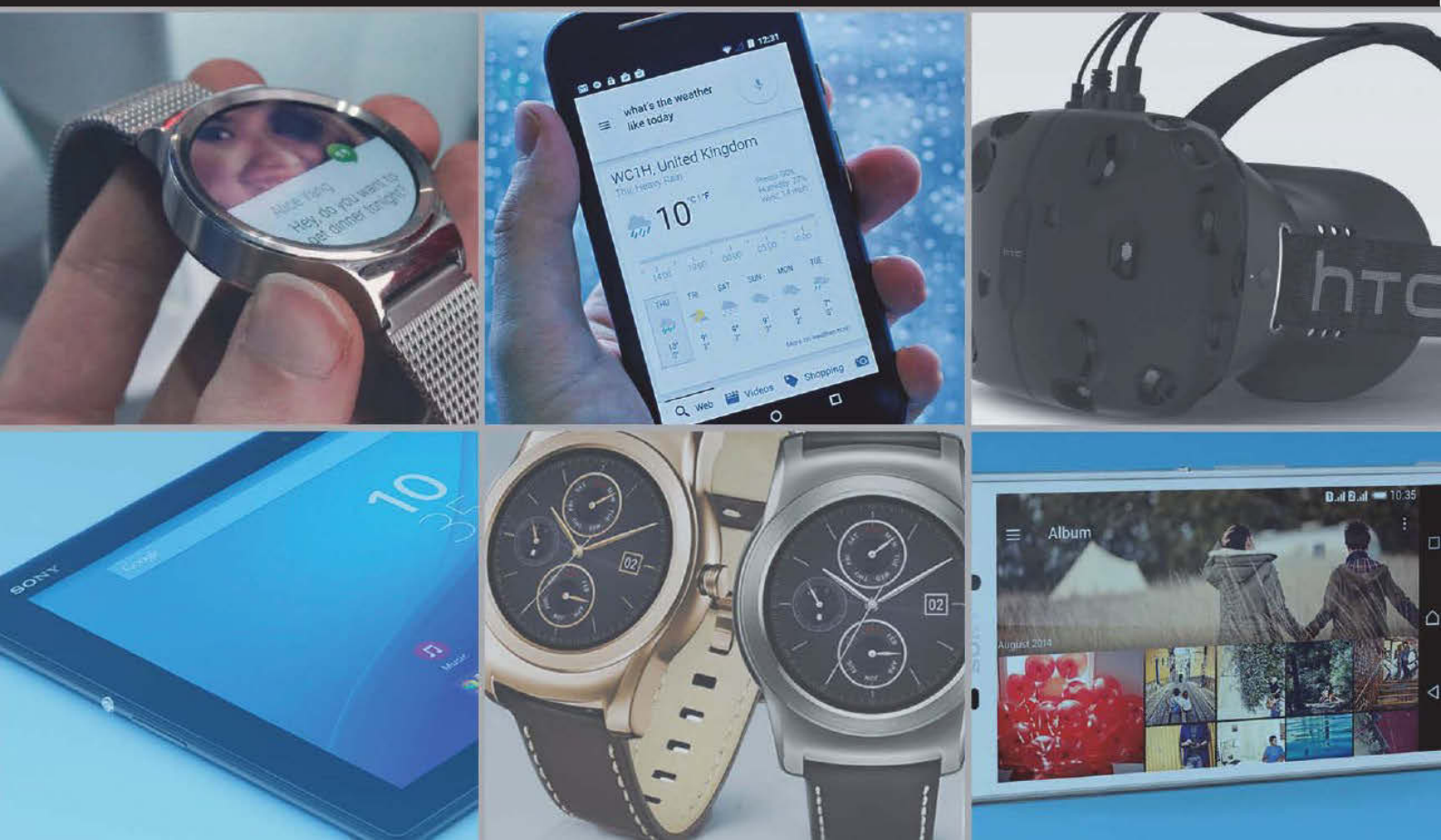
HANDS-ON WITH THE BEST NEW PHONES, TABLETS & WEARABLES FOR 2015



Welcome...

In March at MWC 2015 we got to try out some of the best new phones, tablets and wearables of 2015. In this issue we present our MWC special, with hands-on reviews of everything from the Samsung Galaxy S6 (page 8) and S6 Edge (page 15) to the HTC One M9 (page 23) and Sony Xperia Z4... Tablet (page 44). We'll be waiting a while yet for the Z4 phone, as we explain overleaf.

Despite Apple's recent smartwatch event, in which it revealed it pricing and release date for the Apple Watch, the talk of MWC was the gorgeous Huawei Watch. Why pay up to £13,500 for an Apple smartwatch when you can grab this luxurious piece of arm bling from £349? We take a closer look at the Huawei Watch on page 62.

One of the cheapest new phones is the new Moto E (page 35). Now with 4G support, you get a decent Android phone for a tiny £109. But there are other means of buying cheap phones, as we detail in our article on the pros, cons and risks associated with buying grey-market tech (page 77). We've reviewed a trio of smartphones obtained in this manner, and have found you can get a great deal more for your money. Plus, these phones are often dual-SIM. We explain what that means on page 116.

As always, we hope you've enjoyed this issue of Android Advisor. Feel free to send us your feedback via **facebook.com/AndroidAdvisorUK** or email **marie_brewis@idg.co.uk**.

NO SHOW:
Sony Xperia Z4 delayed

With HTC and Samsung showing off their flagships at MWC Sony was notably absent, but the Z4 is coming

Now with just the one smartphone launch per year, Sony was expected to launch its Xperia Z4 in the summer, but the latest rumours suggest we will be waiting until September's IFA 2015 tradeshow.

Sony announced a slew of new products for its MWC 2015 announcement. Critically, although it has launched a Sony Xperia Z4 Tablet, there was no Xperia Z4 smartphone, one year after it launched the Xperia Z2 and at the point in its release cycle when the Xperia Z4 would be expected. This adds weight

to rumours that there will be no Xperia Z4, and that Sony is looking to exit the smartphone market.

Can it be true – the Sony Xperia Z4 scrapped in light of hard times at the company? With every sign pointing to Sony exiting the smartphone market, we investigate not just when is the Sony Xperia Z4 coming out, but if the Z4 is ever coming out.

Is the Sony Xperia Z4 coming out?

Sony has always preferred to update its smartphones biannually, but rumours prior to MWC suggested this was about to change. It makes sense, too – as was the case with the Z2 and Z3, technology doesn't advance so fast as to make the latest Xperia a must-have upgrade.

At September's IFA tradeshow we got the Sony Xperia Z3; six months previously we saw the Xperia Z2's unveiling at March's MWC. We were convinced we would see Sony unveil the Z4 at MWC 2015.

But among the chaos of the recent hacked accounts at Sony Pictures, details were unearthed suggesting the Z4 would be a product placement in the upcoming James Bond movie, which won't be released until later in the year.

Then an article popped up on Forbes suggesting Sony was looking to exit the smartphone market in 2015 following significant job losses at the company.

Take that news with a pinch of salt. We've since seen new leaked images of the Xperia Z4's metal frame and, on 10 March, Android Advisor was told by a trusted source that the Sony Xperia Z4 would be released in September 2015. It says the news was passed on by an accessories supplier. If this is true, we'll see the Xperia Z4 at September's IFA 2015.

COMING SOON:

Samsung Galaxy Tab S 2

New 8- and 9.7in versions of Samsung's high-end Galaxy Tab S tablet are rumoured for summer 2015

Successors to the Samsung Galaxy Tab S 8.4 and 10.5 tablets have leaked as the Samsung Galaxy Tab S 2 8in and 9.7in.

Samsung Galaxy Tab S 2: UK release date

According to Sammobile the Samsung Galaxy Tab S 2 8in and 9.7in will likely be released in the UK in the mid-summer.

With the original Tab S 8.4 and Tab S 10.5 unveiled at a Samsung event at the end of June 2014, and on

sale in the UK on 4 July, we expect to see a similar pattern in 2015 with their successors.

Samsung Galaxy Tab S 2: UK price

Samsung's Galaxy Tab S line-up are high-end tablets that are firmly pitched as Apple iPad Air 2 and iPad mini 3 rivals. Last year we saw an RRP of £349 for the smaller tablet which, even before its release, was reduced to £319 to match the iPad mini 2. It was a similar story with the larger Galaxy Tab S, which went on sale at an iPad Air-matching £399.

We reckon we'll see the same again in 2015, which means prices starting at £319 for the Samsung Galaxy Tab S 2 8in and £399 for the Samsung Galaxy Tab S 2 9.7in.

What to expect from the new Tab S 2

Sammobile has leaked specifications for the Samsung Galaxy Tab S 2 8in and 9.7in tablets, which use the model numbers SM-T710 and SM-T810 respectively.

Once again the tablets will be very similar to each other, with the main difference being a new metal frame and their screen size. While both screens have been slightly reduced over the 8.4- and 10.5in of the original Samsung Galaxy Tab S tablets, they

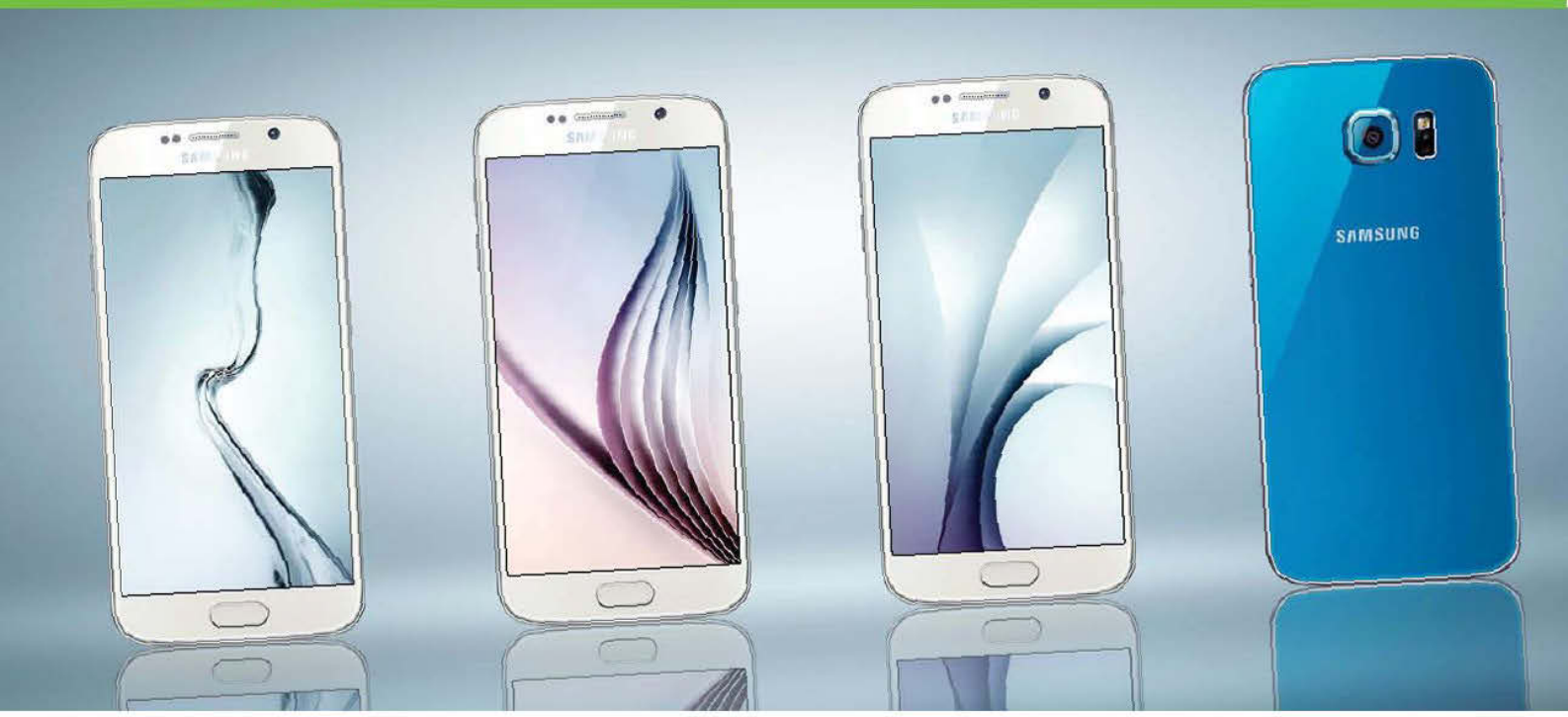
have also switched to a 4:3 aspect ratio and the resolution has been reduced from 2560x1600 pixels to 2048x1536 pixels. The reduction in screen size means the drop in pixel density isn't as great as you might expect, and you're unlikely to notice the difference between the old (359ppi) and new (320ppi) compact Tab S, and old (288ppi) and new (264ppi) large-screen Tab S. As before, they will use Super AMOLED panels.

Inside Sammobile says you'll find a Samsung Exynos 5433 processor (although this may be upgraded to the Exynos 7420 before the Tab S 2's release, given that the tablets will run Android Lollipop and therefore support 64-bit processing). There will also be 3GB of RAM and 32GB of storage (plus up to 128GB via microSD).

A tablet with the model name SM-T815, which is likely the cellular version of the Samsung Galaxy Tab S 2 9.7in, has shown up in the GFXBench 3 database. According to the information held there, the processor is a 1.9GHz octa-core model using an ARM Mali-T760 MP6 GPU.

Cat 6 LTE connectivity is rumoured to feature (we expect this will be optional, adding around £100 to the price), and there will be 3580- and 5870mAH batteries on the small and large models respectively. Both tablets will feature an 8Mp camera at the rear and 2.1Mp at the front.

The tablets are slimmer and lighter than their Apple rivals, with the Tab S 2 8in measuring 198.2x134.5x5.4mm and weighing 260g, and the larger Tab S 2 9.7in measuring 237.1x168.8x5.4mm and weighing 407g. By comparison, the 331g iPad mini 3 and 437g iPad Air 2 are 7.5- and 6.1mm thick.



Hands-on at MWC: Samsung Galaxy S6

With its new Galaxy Samsung has produced its fastest ever phone and tackled build quality complaints

Pre-order from £579 • samsung.com/uk

Samsung unveiled its brand-new flagship smartphone, the Samsung Galaxy S6, alongside the Galaxy S6 Edge during MWC 2015 in Barcelona. We've spent some time with the Galaxy S6 to bring you our first impressions in our Samsung Galaxy S6 review.

Design & build

At first glance, you'd be forgiven for mistaking the Samsung Galaxy S6 for the iPhone 6. Its rounded edges with brushed metal look almost identical.

However, flip over the S6 and you'll spot a major difference: Samsung has gone for a mirrored- rather than the brushed finish you'll get with the iPhone 6. Samsung describes the effect as a "unique visual texture that reflects natural light." We're not keen on it – it's quite blinding, and not in a good way.

It also picks up fingerprints within minutes. There are four colours to choose from, though, with the white and black models much less prone to fingerprints and eye-aching mirror effects than the blue and gold models.

It's a departure from the traditionally plastic back for Samsung. Last year's S5 had that dimpled plastic back, but the S6's metallic back is made with Gorilla Glass 4, just like the display. Gorilla Glass 4 is designed to be super-durable, but if something should happen to the back of your S6 you won't find it as easy to fix as with the previous models, because Samsung has made the decision to go for a unibody design and therefore no removable back. That, of course, also means that there is no access to the battery.

It does feel light and comfortable to hold and not too big, though, weighing 138g and measuring 6.8mm thick (that's 0.1mm thinner but 9g heavier than the iPhone 6, in case you're wondering).

A big downfall to the S6, and incidentally another way that it's similar to the iPhone 6, is that the S6 doesn't appear to be waterproof. Samsung only introduced the waterproof design with the Galaxy S5, so the decision to sacrifice that extra durability that many people loved about the previous model is a surprising one.

Display

The Samsung Galaxy S6's display is stunning, at 5.1in and 577ppi, it's one of the best screens we've seen so far on a smartphone. It's has a Quad-HD 2560x1440 resolution. It's arguably a bit unnecessary on a screen of this size, but there's no denying that it looks amazing.

As mentioned previously it's made with Gorilla Glass 4, so should prove to be tough and durable, and is Super AMOLED as can be expected from a Samsung flagship.

Hardware & performance

Inside the Galaxy S6 you'll find an octa-core Exynos processor rather than Snapdragon, paired with 3GB RAM. During our time with the Galaxy S6 we found it brilliantly fast, with apps launching pretty must instantaneously every time. We're looking forward to getting the S6 into our labs for some full benchmark testing, as we're expecting some impressive results.

In terms of storage, you might be surprised to find that there's no microSD card slot in the Samsung Galaxy S6. The company has decided to take a leaf from Apple's book, but a leaf that is likely to disappoint many of its fans.

Instead, you'll need to decide on the storage space you'll need when you buy the S6. Samsung seems to have been smarter with its starting space

than Apple, opting for 32GB instead of the small 16GB of the iPhone 6's starting model, and then also offering 64GB and 128GB models. When it comes to connectivity, you'll find 802.11ac Wi-Fi, Bluetooth 4.1, NFC, LTE and an IR Remote.

Cameras

We were really impressed with the camera during our testing. Samsung has given the S6 an excellent 16Mp snapper on the rear paired with an LED flash, and a 5Mp camera on the front for some pretty good selfies, both with an f/1.9 aperture.

That rear-facing camera has optical image stabilisation and some good auto-focusing features, including tracking and selective focus. There's also auto real-time HDR (this applies to the front-facing camera, too), as well as low light video capabilities, slow motion, fast motion, IR Detect White Balance and more.

Handily, a simple double click of the home button on the S6 will launch the camera from any screen.

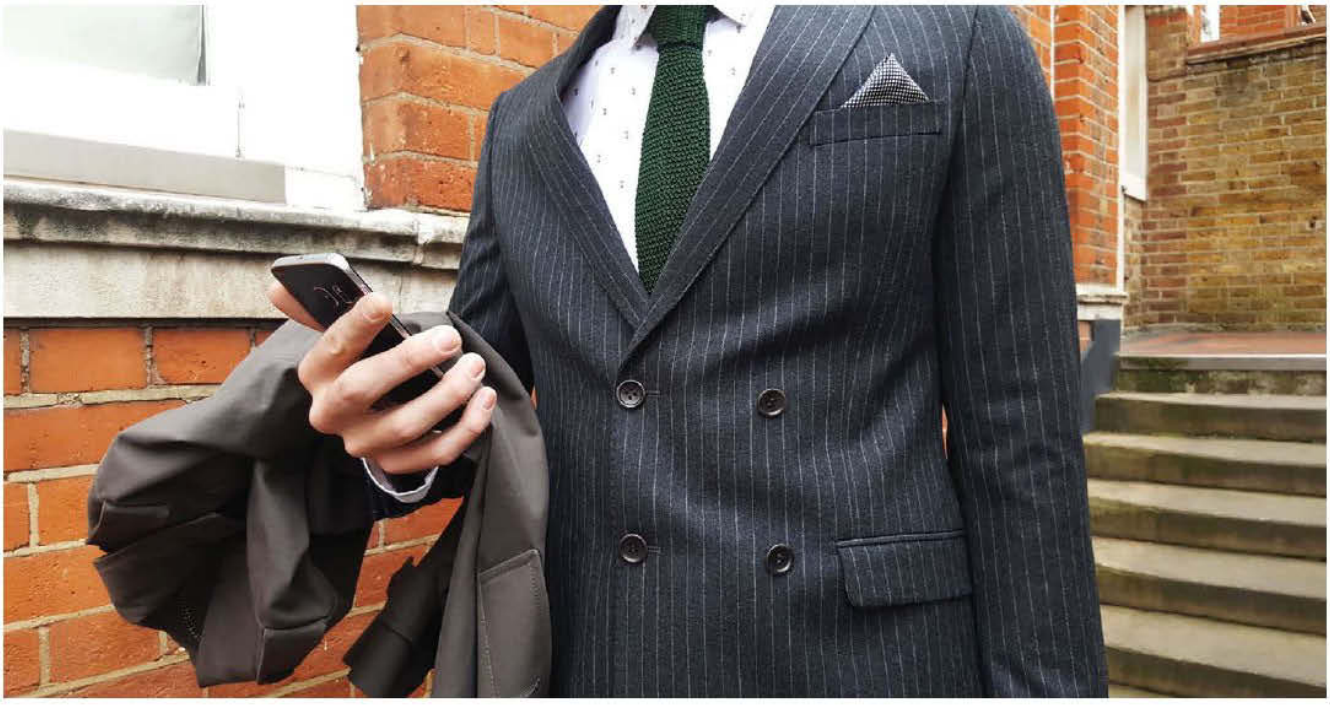
Software

The Galaxy S6 runs Android 5.0 Lollipop, as can be expected. It's overlaid with Samsung's TouchWiz UI. There's the S Health 4.0 app, which will track your activity thanks to the various sensors including a barometer and is also used in conjunction with the heart rate scanner on the rear of the device.

Samsung's new Samsung Pay is made available thanks to the NFC chip, too, though it isn't set to launch in the US until the second half of 2015 so won't arrive in the UK for a long time.

One interesting thing is that the S6 comes with Microsoft Apps preinstalled, and you'll get OneDrive with 115GB of space for two years, as well as Microsoft's OneNote app.

Samsung KNOX is present with security features including Find My Mobile.



Battery life

Samsung representatives were keen on highlighting the S6's battery life. The company claims that just 10 minutes of charging time will give you four hours of battery life, and there's optional wireless charging available too.

The battery itself is 2550mAh. Samsung provides an Ultra Power Saving Mode for prolonging that battery life further. We'll be bringing you full battery tests soon.

Extra features

In terms of additional features we've got the fingerprint scanner in the home button, which has been tweaked to now recognise your fingerprint with just a touch rather than the previously slightly annoying downward swipe.

The heart rate monitor is still positioned on the rear of the S6, just beneath the camera's LED flash.

Price & availability

The Galaxy S6 is expected to be available worldwide from 10 April, but UK pricing has yet to be officially announced. Mobile Fun is accepting preorders on the 32GB S6 for £579, which is the same as Samsung's original price for the Galaxy S5.

We have also had confirmation that Vodafone and Three will be among the carriers selling the S6.

Hands-on at MWC: Samsung Galaxy S6 Edge

Following on from the Note Edge comes the S6 Edge, with not one but two curved screen edges

Pre-order from £649 • samsung.com/uk

As expected, Samsung launched the Galaxy S6 and Galaxy S6 Edge at MWC 2015 in Barcelona. Here's our Samsung Galaxy S6 Edge hands-on review.

Price and release date

Samsung has confirmed that the Galaxy S6 and Edge model will be available starting 10 April but hasn't announced prices. MobileFun is taking preorders for the Galaxy S6 Edge from £649.

Design and build

The Galaxy S6 looks pretty similar to the regular Galaxy S6, as you'd expect. However, it has a curved screen which wraps both sides of the phone and we'll talk a lot more about those in a bit.

For a large smartphone, the Galaxy S6 Edge is very light, just 132g and it's not exactly thick at 7mm (a tiny bit thicker than the regular model but strangely lighter). Note that the measurement doesn't includes the camera, which sticks out a bit.

We've been criticising Samsung for putting out premium phones with a plastic build for a long time and this is the first time the firm has really eradicated that horrible stuff. The S6 uses a nice metal frame around the edge which does look remarkably similar to that of the iPhone 6. Similarities aside, the front and back use Gorilla Glass 4 which finally makes the S6 feel like the premium phone it should be.

Both the Galaxy S6 and Galaxy S6 Edge feel great in the hand and can compete with the likes of HTC and Apple on design and build. This is a massive win

for Samsung and will really help it this year in the fierce smartphone market.

Although we're awestruck by the design, there are a couple of downsides as a result. The first is that the battery is no longer removable which fans may be disappointed with. This is a necessary change to get the design like it is, though while the second downgrade isn't. Apart from the Galaxy Alpha, Samsung has always offered expandable storage but the S6 Edge lacks a microSD card slot which is a real shame and moves Samsung towards the Apple style of less freedom.

Another big design change from the Galaxy S5 is that Samsung has dropped the dust- and waterproof credentials which unavoidably makes it more like the iPhone 6.

While the Galaxy S6 Edge looks great in either black or white, there are other colours available. There's gold and a new green colour which is exclusive to the Edge (the regular S6 will come in gold and blue). Colour options are great but they

use a chromed/mirrored finish which won't be to everyone's taste. Not only does it look a bit naff, fingerprints and smudges show up like never before.

Hardware

The Galaxy S6 Edge is identical to the regular model apart from the screen. They are both 5.1in and Quad-HD, but the Edge has the dual edge feature which is the main thing to talk about.

For starters the screen looks amazing with the usual SuperAMOLED technology and the curved sides give it a bezel-free look. The upgrade to Quad-HD (1440x2560) means an incredibly crisp image. A pixel density of 577ppi is the highest we've ever seen on a smartphone, outpacing the LG G3.

The Galaxy Note Edge has an edge screen down the right-hand side, and while the S6 Edge is similar it's also very different. For a start it's down both sides so you can choose, based on whether you're left or right handed, which side you use for the features.

It's worth noting that the edge screen isn't as big as that on the Note Edge, so there isn't a bar showing icons and information all the time. Instead you use it occasionally for a handful of things. Like the Note Edge, you get notifications and a clock. The main feature touted is People Edge, so if you swipe in from the side you get quick access to contacts.

These can also be grouped with a colour assigned to each group so that when the phone is face down, you can see which group is calling via the edge. However, it only lights up the side which you've selected which seems a bit silly and who places their phone face down anyway.

With a great deal more functionality on the Note Edge, the S6 Edge seems a bit of a let down. We hope Samsung can add more in the future. We're waiting for official pricing so can't say yet whether it's worth the extra compared to the S6.

As expected, Samsung hasn't gone for the Qualcomm Snapdragon 810 processor, instead opting for its own Exynos 7420 which is also

octa-core (quad-core 1.5GHz Cortex-A53 and quad-core 2.1GHz Cortex-A57). There's 3GB of RAM and a Mali-T760 GPU. Performance seemed exemplary during our hands-on time but we'll test this further when we get a review unit.

There is no microSD card slot for adding more storage, which we're disappointed about and will no doubt anger fans. While the regular Galaxy S6 comes in 32-, 64- and 128GB capacities, the Edge only comes in 64- or 128GB.

Wireless and additional hardware remain strong with dual-band 802.11ac Wi-Fi, Bluetooth 4.1 with atpX, NFC and an IR blaster. There's also Cat 6 4G LTE support with Samsung's Download Booster which combines 4G cellular and Wi-Fi connections.

Samsung still provides a heart rate monitor, which is located on the back next to the LED camera flash and still doesn't take a reading first time. The fingerprint scanner is still embedded inside the home button and gladly Samsung has changed it so you only need to touch it rather than swipe. We've only has a quick play with it but it seems a lot better than the last iteration.

Battery size has dropped compared to the Galaxy S5 from 2800mAh to 2600mAh (even lower at 2550mAh on the regular S6). However, Samsung has added wireless charging with WPC and PMA

standards. The firm also touts fast charging with 4 hours usage from just 10 minutes worth. We'll test out battery life fully in our final review.

The main camera remains at 16Mp but there are improvements elsewhere which new auto real-time high dynamic range (HDR), Smart Optical Image Stabilization (OIS) and IR detect white balance. You can also now launch the camera in as little as 0.7 seconds, according to Samsung by double tapping the home button. We're not sure if it quite hit this mark but it certainly does it speedily. At the front is an upgrade to a 5Mp snapper for selfies and the results of our hands-on photos were very impressive but we'll test it more when we get a review unit.

Software

Moving on from hardware and the Galaxy S6 Edge is running on Android 5.0 Lollipop with Samsung's own TouchWiz user interface.

The software isn't massively changed from the Galaxy S5 despite rumours of a move to a much more vanilla look. That said, the software is slick and easy to use with Samsung using its own notification bar rather than Lollipop's but going for Google's card-style recent apps menu.

Flipboard still sits to the left of the main homescreen for your newsfeed and we found a Themes part of the settings menu which will let you change the look of the interface.

Samsung was touted to install less apps out-of-the box and while there seems to be less, the phone now comes with Microsoft apps preinstalled including OneDrive, Skype and OneNote.

A new feature which will launch in the US later this year is Samsung Pay, an NFC payment system to rival Apple Pay.

Hands-on at MWC: HTC One M9

HTC's One M9 was perhaps the best-looking phone on show at MWC, but it's not moved on far from the One M8

£579 • htc.com/uk

The new HTC One M9 is absolutely gorgeous, but its hardware hasn't moved on much – can it compete with the iPhone 6 and Samsung Galaxy S6? Here's our HTC One M9 hands-on.

Announced at MWC 2015, the HTC One M9 is the Taiwanese firm's flagship smartphone for 2015. It was announced on the same day as the Samsung Galaxy S6, which is one of its main rivals - at least until LG and Sony unveil their new premium handsets.

Note: The software on our HTC One M9 review unit is not final so we will be updating this review on 23 March with more details including benchmarks. Until then, this is a hands-on review of the phone.

UK release date and price

The HTC One M9 will hit the shops on 31 March 2015 and the official price is £579, matching the Samsung Galaxy S6 which will arrive just after on 10 April. Unusually the iPhone 6 is now a cheaper option as it starts at £539, but the entry-level Apple phone has just 16GB of storage.

The HTC's price is acceptable, but more than was the HTC One M8 when it launched at £550. With the M9 being a similar phone, as we'll explain, the older generation looks like a bit of a bargain at the £350 mark saving you more than £200 – it could well drop even further once the M9 goes on sale. It's similar to the situation with the LG G2 and the LG G3 – if you're happy to not have the latest handset, there are bargains to be had.

If you don't think you can afford the HTC One M9, the firm normally offers a mini version, but there's no sign of it yet. Don't worry because HTC didn't announce them together last year. For now we'll have to focus on the full-size phone.

Design and build

As you can see from our photos, HTC hasn't altered the design of the M9 much compared to the M8 or even the original HTC One. It's more a case of design evolution which the company likens to that of the Porsche 911.

It might be easy to criticise HTC for having another similar looking smartphone but we can hardly blame it considering how nice the previous two generations are. If you look close enough, there are some changes, though.

The M9 is made from a similar metal block to that of the M8 and uses the same curved shape and hairline finish while using angular features from the HTC One M7 (the original HTC One). The firm tells us the process takes 70 steps to complete.

New features in the design include a scratch-resistant coating, machine drilled buttons and a sapphire glass lens on the rear camera. The power button is now on the side instead of the top which we think is a much better place for it and it has a textured finish so you can feel the difference next to the smooth volume buttons. It's still easy to get

confused between them, though and the volume buttons might have been better placed on the left. Motion Gestures mean the power button isn't needed half as much, though.

Colour options are similar, but HTC has employed a new two-tone look with the back and sides getting contrasting adonisation. Our sample's rear cover has a silver finish, while the sides are gold. If this model doesn't float your boat then there will also be 'gold on gold' and 'gun metal grey on grey'.

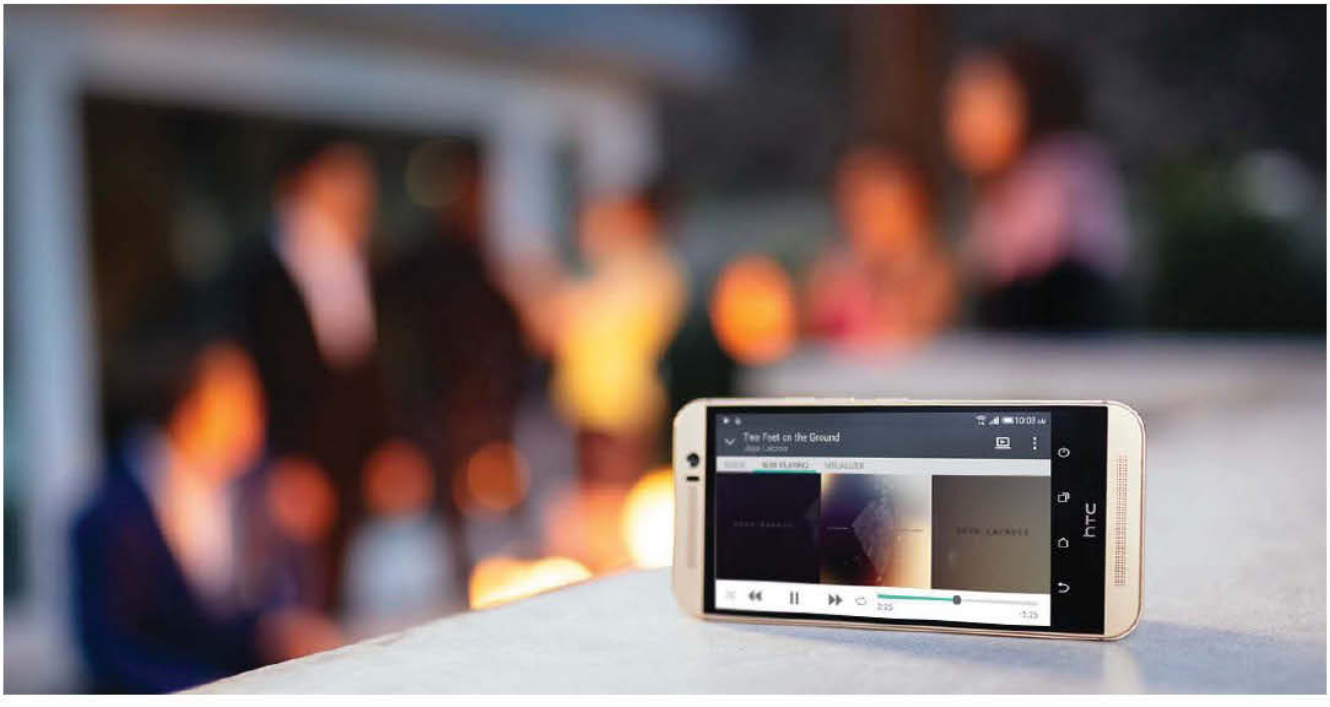
All in all the HTC One M9 is a very desirable smartphone when held in the hand – easily one of the most desirable. It fits nicely and like the M8, is one of the only phones on the market to compete with the iPhone on build quality. It screams of good craftsmanship, but the stepped design might not be to everyone's taste – at certain angles it looks like a case.

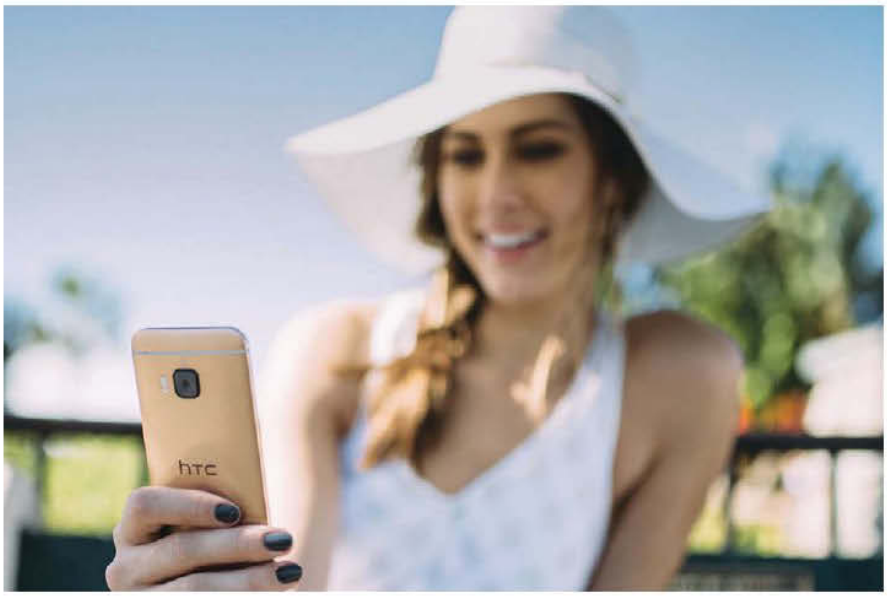
We were hoping for a thinner and lighter design and although HTC tells us the device is slightly lighter than its predecessor we weighed them both at 158g, it's also marginally thicker at 9.7mm compared to 9.6mm. It's 10.4mm where the camera slightly sticks out.

HTC's original Dot View case was a winner and there's a new version for the M9. It's a pretty similar affair and you can customise what is shown through the tiny holes in the front cover. The big difference is a clear back which partly wraps round the side so you can still admire the metal chassis. There's nothing worse than buying a gorgeously made product then hiding it behind a case.

Hardware and specs

HTC has decided to stick with a 5in screen for the M9 and has also kept the resolution at full-HD (1080x1920). There's no upgrade here so it might seem lower grade than Quad-HD devices such as





the LG G3 but HTC tells us the higher resolution isn't needed on a display this size and would mean a sacrifice in the battery department.

5in is a solid size, neither too big nor too small, but we can't help but feel disappointed that HTC has done nothing here to upgrade. We've seen Quad-HD on the LG G3 and now the Samsung Galaxy S6 and it's simply better. The M9's screen looks good but the aforementioned rivals look incredible.

There are some other things which remain the same too, such as 32GB of internal storage (21GB available) and a microSD card slot capable of accepting up to 128GB cards. There is a 64GB model, but this has not been confirmed for the UK.

Wireless setup remains strong with 802.11ac dual-band Wi-Fi, Bluetooth 4.0 with aptX, NFC and an IR blaster. The One M9 also supports 4G LTE networks via a nano-SIM slot. If you were hoping for any new features like a fingerprint scanner or heart-rate monitor then it's bad news. What HTC has done instead is focus on improving existing hardware in the audio and photo departments.

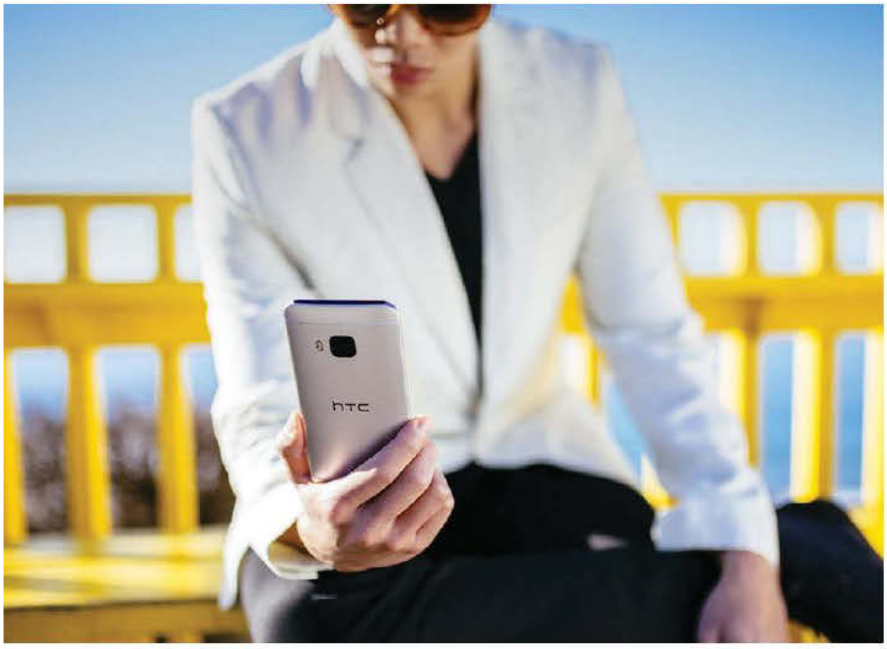
While the above remains the same compared to the M8, there are some hardware improvements.

Memory has been boosted by 50 percent to 3GB and there's a new processor in the form of Qualcomm's Snapdragon 810 which is both octa-core and 64-bit (quad-core 1.5GHz Cortex-A53 and quad-core 2GHz Cortex-A57). It comes with the Adreno 430 GPU and we really can't fault the performance. It's really only the camera app which doesn't open instantly.

We're waiting for the final software before we publish benchmark results.

The BoomSound front facing stereo speakers are still a key feature and although HTC hasn't added support for High-Res 24-bit audio (look to Sony for that), it has added Dolby Audio.

A new audio feature is called HTC Connect and means a simple three finger swipe will send the audio to a connected speaker – a reverse gesture will bring it back. We tested this out with the Harmon/Kardon One, which will be exclusively



bundled with the M9. It worked first time, although with a slight delay.

With BlackFire technology and some more speakers you'll also be able to have a multi-room setup playing different tunes in different rooms or the same one on everything. Other HTC One M9 users will be able to hook into the system and queue their own tracks.

Cameras

The HTC One M9 no longer has the Duo Camera setup consisting of two camera lenses. Instead, HTC has gone for a 20Mp rear camera with the same dual-LED flash. This is the biggest hardware change compared to the M8 and confirms HTC has given up on the refocusing element.

We like the stylish and easy to use camera app which has various modes. There's Camera, Selfie and Panorama but you can add more like Bokeh and Split Capture. With 20Mp on offer, there's plenty of detail and we found the camera accurate at auto

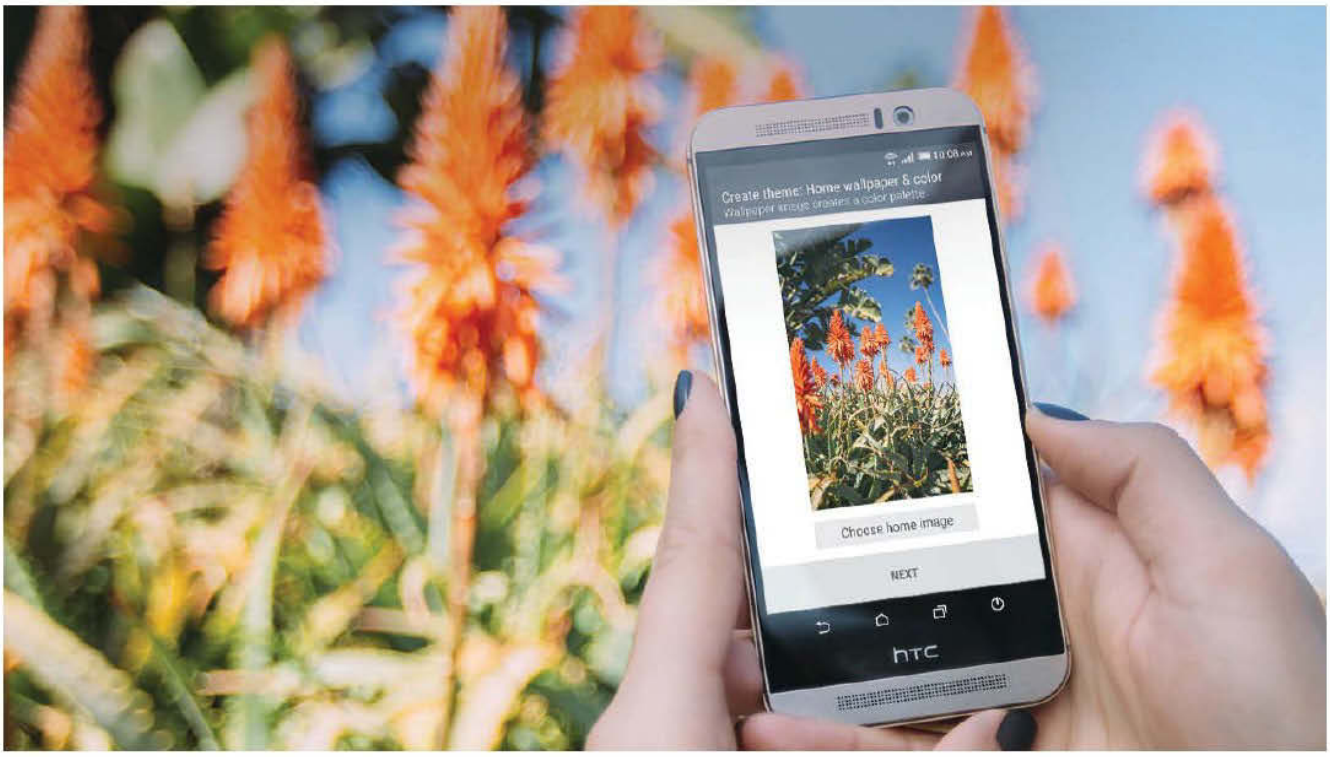
focusing and shooting quickly. The M9 does crop to 16:9 by default though, so you'll need to head into the settings to get all those available pixels.

You can shoot in a regular mode, but quickly switch to others such as HDR, Night and Macro. If you're feeling a little more adventurous, you can enter manual mode and start fiddling with the white balance, ISO, shutter speed and even focus. It's displayed on the screen in bars like the Lumia 1020.

On the video side it can now record video in up to 4K resolution and uses a 'dynamic exposure algorithm' to mimic the human eye, we're told. Default is full-HD, though and to rival the iPhone there's a Slow motion mode (120fps).

HTC hasn't completely given up on the UltraPixel (which lets in more light) as the front camera on the M9 is the rear camera from the M8. Whether or not it was good on the back of the last generation, it makes for a good selfie camera on the M9 with a crisp and detailed image that works well in low light.

To go with the new hardware is a software feature called One Gallery which we haven't been able to try out but will in theory bring all your photos together



from the likes of Dropbox, Flickr, Google Drive and Facebook into one place.

Battery life

HTC increased the battery size from the original HTC One to the One M8 and has done so again with the new One M9. It's now 2840mAh compared to 2600mAh, which is a smaller jump than last time around and the battery is still non-removable which is the same across most flagship smartphones.

Despite the larger capacity, we've found the battery life to be no different to the HTC One M8. With an average usage pattern, the M9 lasted us a couple of days before needing to be charged. That's still a good effort with many phones only managing just one day. Note that the final software may affect battery life, however.

There's no wireless charging, which is a shame, but HTC still offers its Extreme power saving mode

which put the M9 into a basic mode (although not greyscale like similar features on rival phones), allowing access to a small selection of simple functions like phone and messages.

Software

As you would expect, the HTC One M9 runs on Android 5.0 Lollipop which is the latest version. However, HTC doesn't leave it as is so puts its own skin or user interface over the top. The M9 introduces Sense 7.0 which means you get HTC's style including icons and apps but there are also some new features.

HTC largely does things its own way with BlinkFeed to the left of the main homescreen, a grid view recent apps menu and a vertically scrolling app menu. However, the stock drop-down notification bar is in use (with some HTC style added) and the good news is that you can customise which quick settings you want – thanks, HTC.

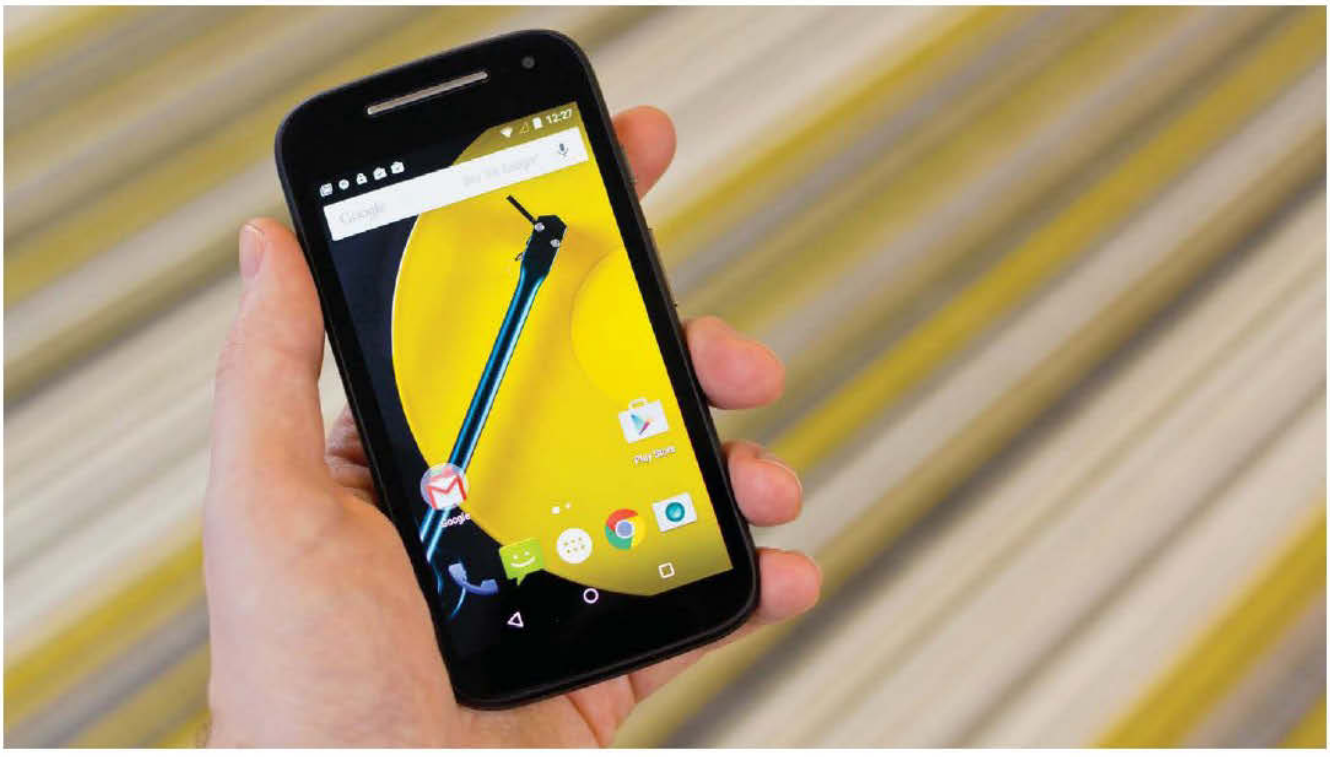
Luckily you can tweak the way you want to use the phone so the BlinkFeed panel can be removed, you can opt for the stock Lollipop card system for recent apps and although you can't make the app menu scroll horizontal you rearrange around, hide them and adjust the grid size.

Talking of customisation, this is the main emphasis of Sense 7.0 so there's a new Themes app where you can download various user interface themes. However, you can edit details yourself such as icon styles and fonts. The software will also generate a theme for you based on a photo which is pretty cool.

Motion Launch Gestures are still part of Sense and mean you can do handy things like double tap the screen to turn it on and off. Up, down, left and right swipes will unlock, turn on voice dialling, launch the widget panel and open BlinkFeed respectively – all with the screen off.

We've already mentioned HTC Connect and One Gallery in relation to audio and photo; another new feature is called HTC Sense Home – it's not an app, but the launcher HTC now uses. The software is location-aware, so you can use a different lock- and home screens depending on where you are.

For example, when at work you'll get icons for your email and calendar and these will automatically get replaced with a remote control app and Facebook when you get home. You can select what you want for each layout, but suggestions will be made based on your habits. We've been using it for only a few days; it's already pretty handy, although the suggestions can be annoying.



Hands-on at MWC: Motorola Moto E 4G

A worthy upgrade over the original, the new Moto E is the best cheap 4G phone you can buy in the UK

£109 • motorola.co.uk • ★★★★☆

Motorola has upgraded its super-budget smartphone, the Moto E, for 2015. The new Motorola Moto E has received some useful hardware upgrades for faster performance, and comes in a version with 4G LTE.

Price and availability

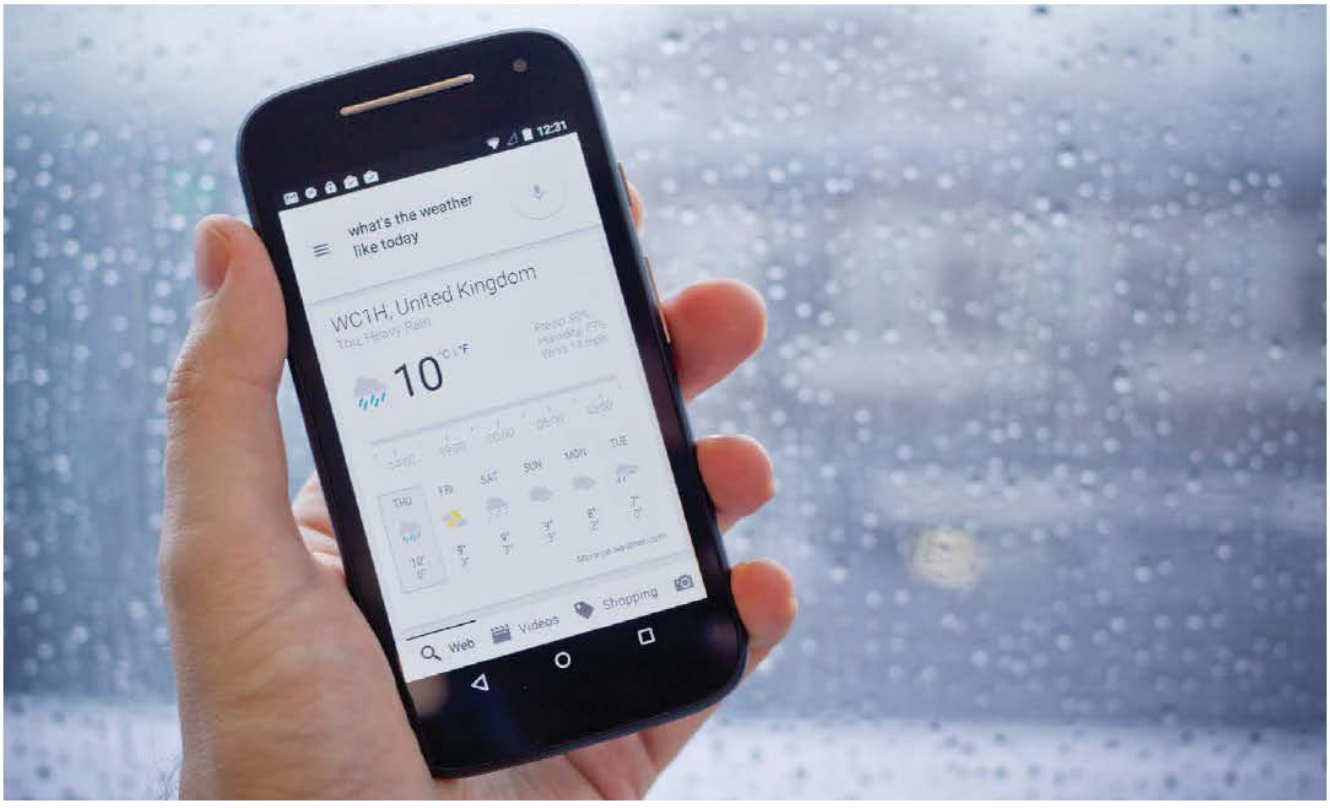
Motorola's 4G Moto E is available now at £109. Note that many networks will also require you to buy a £10 top-up, however. For example, you can buy the

Moto E 4G on O2's network from Amazon for £119. The non-4G model will be available in the US, Latin America and India from 3 March, with other countries to follow. That 3G version will cost $119.99 in the US, but a UK price is not yet known.

At £109 this budget 4G phone goes up against the likes of the EE Kestrel and Doogee F1 Turbo Mini. With some useful hardware upgrades that we'll outline below, the Moto E is no longer just a cheap phone for first-time or light users, but a proper Android smartphone that is more than capable enough for day-to-day use.

Design and build

The new Moto E 4G is very similar in its design to the original, with the same curved rear, chunky design that feels good in the hand, and reasonably thin screen bezel. It's lost one of the two metal bars at



the front, now with just the one at the top to hide the speaker. For a budget phone, it looks pretty good.

Whereas you could change the rear shell on the original Moto E, with this new version you can also change the grippy band that runs around its edge, allowing you to mix-and-match colours and create your own design. Motorola shells and bands are sold separately, though, and the Moto E ships with matching black or white shell and band.

A key difference is the slightly larger screen. Now a Kestrel-matching 4.5in rather than the 4.3in we saw in the original Moto E, the Motorola offers slightly more screen space on which to watch videos and play games. The resolution hasn't changed, though, meaning this qHD (540x960) IPS display has a slightly lower pixel density of 245- rather than 256ppi. Show us the difference and we'll show you a liar.

The display itself is good for the price, bright and reasonably clear for a qHD screen. IPS tech means colours are true and viewing angles are

good. The Moto E's screen is now splashproof; it also has an anti-smudge coating and is protected with Gorilla Glass 3.

Despite the increase in screen size, the new Moto E is just 3g heavier than the original. The reassuringly heavy 145g smartphone is the same width at 12.3mm, which is a tell-tale sign of its budget price, and just a little longer and wider at 66.8x129.9mm.

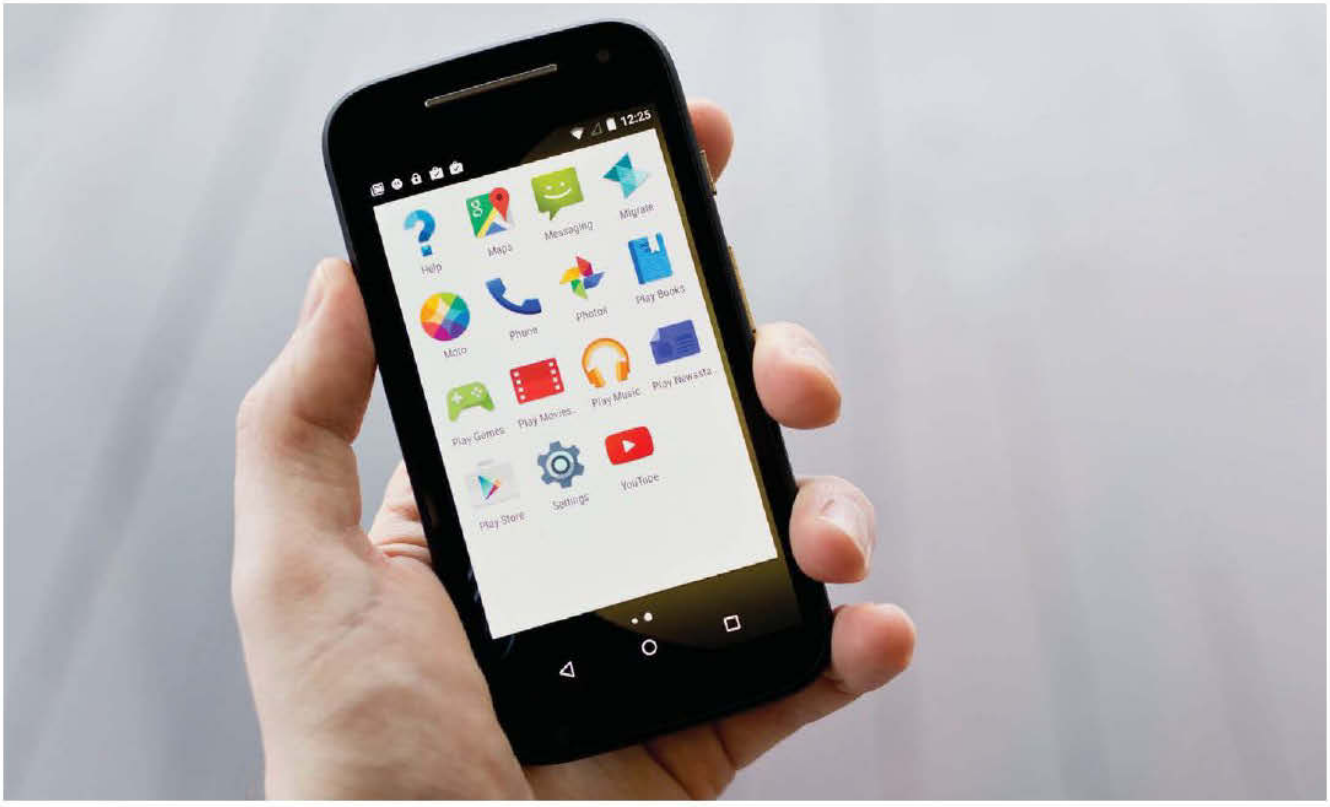
Hardware and performance

The new Moto E features several hardware upgrades. It still has a 1.2GHz Qualcomm Snapdragon chip, but the 410 chip seen here is quad- rather than dual-core. Memory is the same, at 1GB, while storage has doubled to 8GB. As before you can add up to 32GB via microSD. (Neither the memory or storage allocations would be anything to shout about with a flagship phone, but at this price

they're very reasonable.) And whereas the original featured the Adreno 302 GPU, this new Moto E has the 306.

We ran the new Moto E 4G through our usual benchmarks and were pleasantly surprised with its performance. Whereas the original managed 608 points in Geekbench 3.0's multi-core component, the new Moto E recorded 1463. In the single-core component we saw 464 points. In terms of raw performance, that makes it significantly faster than the original Moto E, quite a bit faster than the EE Kestrel, and lagging only the Doogee F1 (but that's a grey-market phone, and you may prefer to stick with one intended for sale in the UK).

In SunSpider it lagged those phones with its 1301ms score, but again saw a marked improvement over the original Moto E's 1877ms. And it was the same story for graphics performance, with the new



Moto E 4G turning in 6fps in Manhattan and 13fps in T-Rex (the original managed 5fps in Manhattan and 11fps in T-Rex).

In actual use, the new Moto E feels pretty swift in general, but there can be annoying delays when opening apps. There's also slight hesitancy when navigating around Lollipop, but nothing you won't quickly get used to.

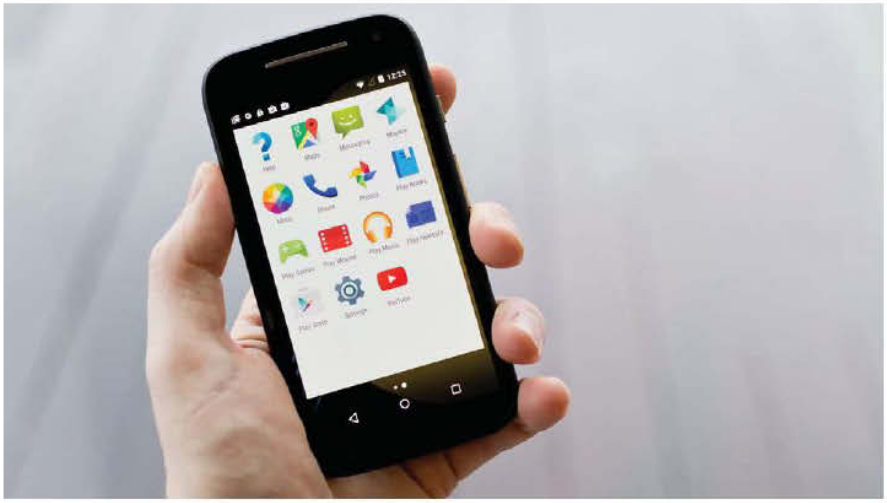
Cameras

One of the additions to the new Moto E is a front-facing camera. It's only a VGA model, and not much cop for selfies (although you can set a timer), but those looking to Skype or video chat through other means will appreciate its presence.

As before the rear camera is 5Mp, here with a f2.2 aperture, 4x digital zoom and several features such as a burst mode, auto HDR, tap to focus and quick capture. HD (720p) video is supported at 30fps, and there's also a slo-mo video mode. There's no LED flash, which is not at all unusual for a budget phone, but it's a pain if you were hoping to use your phone as a torch.

The results are very much the same as we saw from the original Moto E. Images are generally well exposed, but lack detail and reveal heavy-handed compression when you zoom in and look closely. They're fine for sharing online, but won't produce good enlargements for printing to put on the wall.

A neat feature of this new Moto E is its ability to quickly launch the camera with a quick double-flick of your wrist, even if the phone is in standby. As usual, you'll need to change the default aspect ratio



in the camera app from 16:9 to 4:3 in order to get the full resolution of the sensor, otherwise you'll be getting 3.7Mp images.

Video is understandably shaky since there's no stabilisation. However, it is captured in HD now – 1280x720 as opposed to the 854x480. It is much better than the old phone and colours are decent enough, but detail is lacking compared to the best smartphone video and it isn't particularly sharp.

Connectivity

Here's the key change in the new Moto E: for an extra £20 over the original it includes 4G connectivity, operating on LTE bands 1, 3, 7 and 20. 4G is the fastest mobile data standard, and both network coverage and pricing within the UK is getting better all the time.

Other connectivity specs remain unchanged, and the new Moto E 4G features Bluetooth 4.0 LE, 802.11b/g/n Wi-Fi and GPS.

Software

Whereas the original Moto E ran Android KitKat, the new Moto E 4G has Lollipop version 5.0 out

of the box. Amazingly, for such a cheap phone, Motorola is also guaranteeing an upgrade to the next version of Android.

It's a reasonably plain implementation of Lollipop, but with some unique Moto software features. It can show notifications without waking the screen, and monitor your activity to create useful new features and functions. Motorola Assist keeps your screen off while you sleep or in a meeting, plus there's the double-twist gesture we mentioned earlier to launch the camera. Motorola Migrate also features, easing the transition from your old phone, and there's Motorola Alert, which can share your location with your friends and family.

Battery life

Motorola has also upgraded the Moto E's battery. Whereas before it was fitted with a 1980mAh battery it now has 2390mAh. That's perhaps not a big a jump as it sounds, given the faster hardware, although Android Lollipop *should* be more efficient than KitKat.

We've not had this phone long enough to thoroughly test the battery, but early indications are very good, and we're sure the Moto E will last a full day with mixed use, just as Motorola claims.

Verdict

The new Moto E 4G is a worthy upgrade over the original, with upgrades in every area. For an extra £20 it adds 4G connectivity and a front-facing camera, plus performance and storage improvements. A much better deal than the Kestrel, this is the best UK budget 4G phone we've seen.

Hands-on at MWC: Sony Xperia Z4 Tablet

We were expecting a smartphone and we got a tablet. Good job it's a decent one, Sony

£499 • sony.co.uk

Sony's Xperia Z4 Tablet is an iPad Air 2 rival with 17-hour battery life. We get hands-on with Sony's new tablet for 2015.

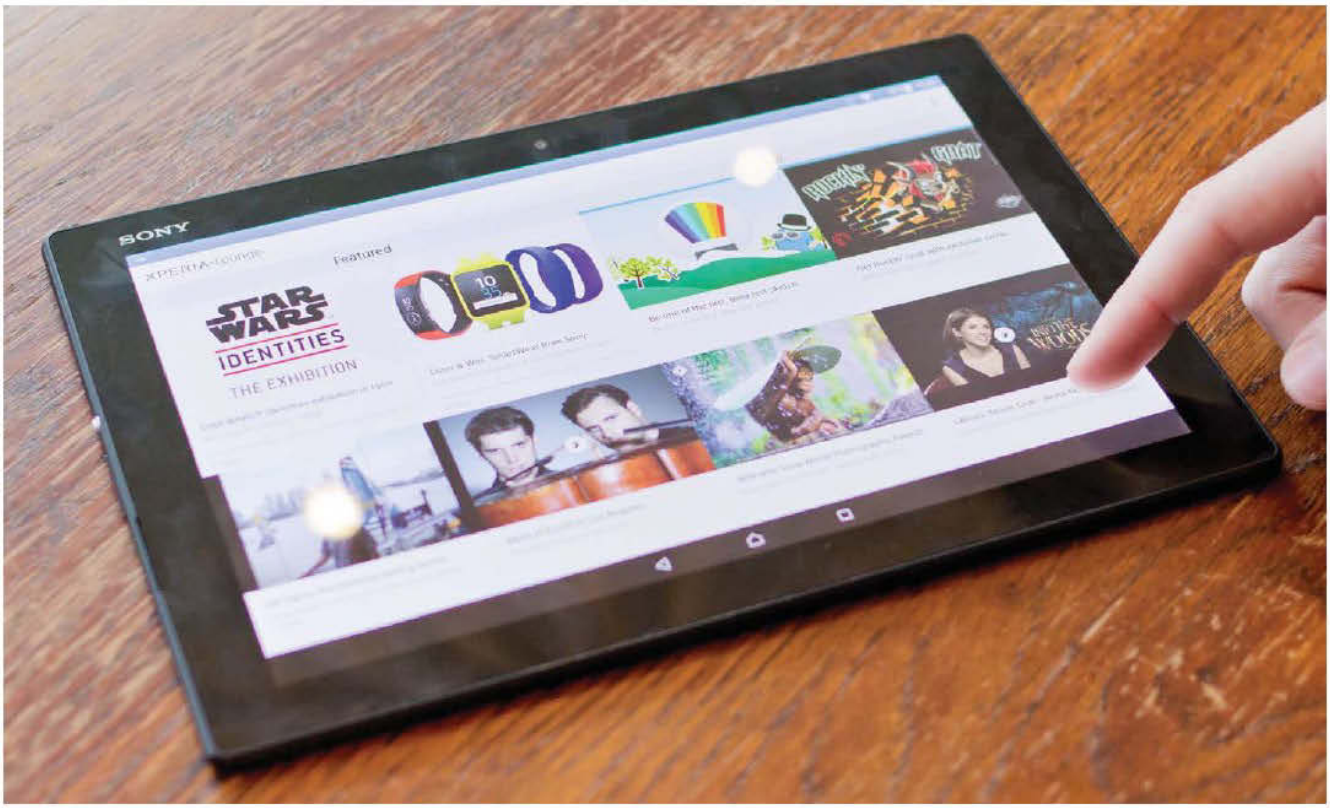
Last's years Z3 range included one tablet which was Sony's first smaller size, the 8in Z3 Tablet Compact. Instead of replacing that range – which also has the Z3 and Z3 Compact phones – Sony has added to it with the Xperia Z4 Tablet. It's a new 10in device that succeeds the Xperia Z2 Tablet.

Although we thought it would be £399 to match the iPad, Sony's online store has the Wi-Fi-only model with 32GB of storage priced at £499. It's expensive, but that price does include the BKB50 keyboard dock. You'll need to pay £579 to add 4G LTE connectivity.

Design and build

Its predecessor was and still is an impressive tablet and we didn't think Sony could do much to the 6.4mm, 426g chassis. However, it has managed to slim it down further to 6.1mm which isn't much but the weight has dropped to just 392g.

In comparison with the market-leading iPad Air 2, it's the same thickness and a decent 45g lighter so tops marks to Sony. The Xperia Z4 Tablet feels great in the hand with the weight particularly making it



easy to handle. The firm calls it the 'World's lightest 10in tablet with brightest 2K display'.

Sony continues to offer dust- and waterproofing, this time to an IP68 rating which is the highest available. We've got used to the headphone port not needing a cover or flap to keep the moisture out but now the Micro-USB port doesn't either, which is a great addition.

Aside from the above changes, the design remains essentially the same. A reasonable bezel runs around the display which doesn't look great but means you can hold any side without needing to touch the screen. The Xperia Z4 Tablet will be available in black and white options.

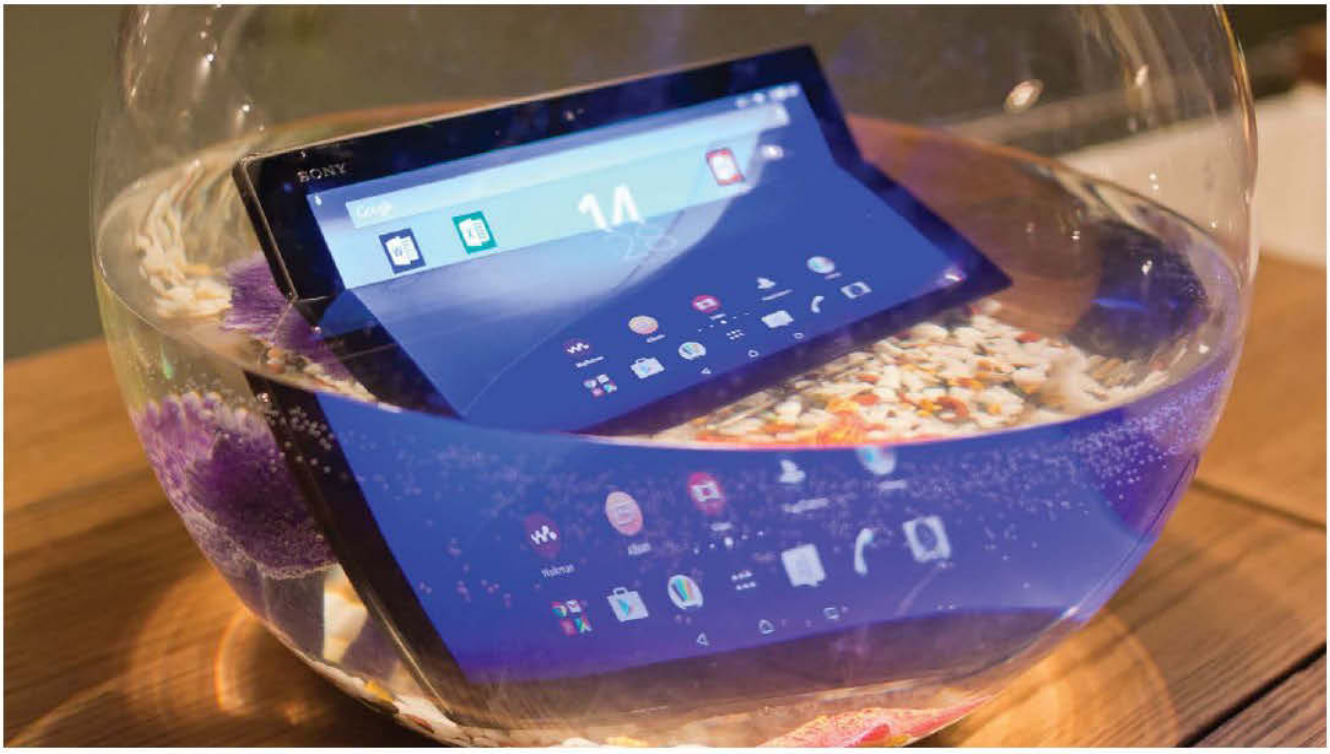
An optional Bluetooth keyboard dock will be available that supports tilt and a trackpad for what Sony calls a 'premium laptop experience'. We weren't massively impressed with it.

Hardware

The screen size remains at 10.1 in but Sony has improved the resolution to 2560x1600 and boosted the brightness to 500cd/m2. That's plenty of brightness on offer and the pixel density of 299ppi is impressive outpacing the iPad Air 2 which is 264ppi. The 'Triluminos' screen looks great and the IPS panel means great viewing angles. We really can't fault it.

Other hardware upgrades include a Qualcomm Snapdragon 810 processor which is both octa-core and 64-bit. There's 3GB of RAM to accompany it, 32GB of internal storage and a microSD card slot for adding up to 128GB more.

Additional hardware consists of 11ac Wi-Fi, NFC, Bluetooth 4.1 and MHL 3.0, but Sony has dropped the IR blaster. There's a Wi-Fi only model but you can also opt for 3G/4G LTE connectivity, and Sony tells us this model can also make phone calls.



On the audio side is added support for High-Res audio like the Z3 range with front facing stereo speakers, digital noise cancelling support, automatic headphone compensation and a new LDAC codec which supposedly transmits data three times more efficiently than Bluetooth.

For photo and video there are reasonable 8.1- and 5.1Mp cameras back and front. The main camera uses Sony's Exmor RS sensor and the front has a wide angle lens to get more people in the frame.

An impressive claim and one we couldn't test during our hands-on is a whopping 17 hours of video playback from the 6000mAh battery. For comparison Apple touts 10 hours from the iPad Air 2.

Software

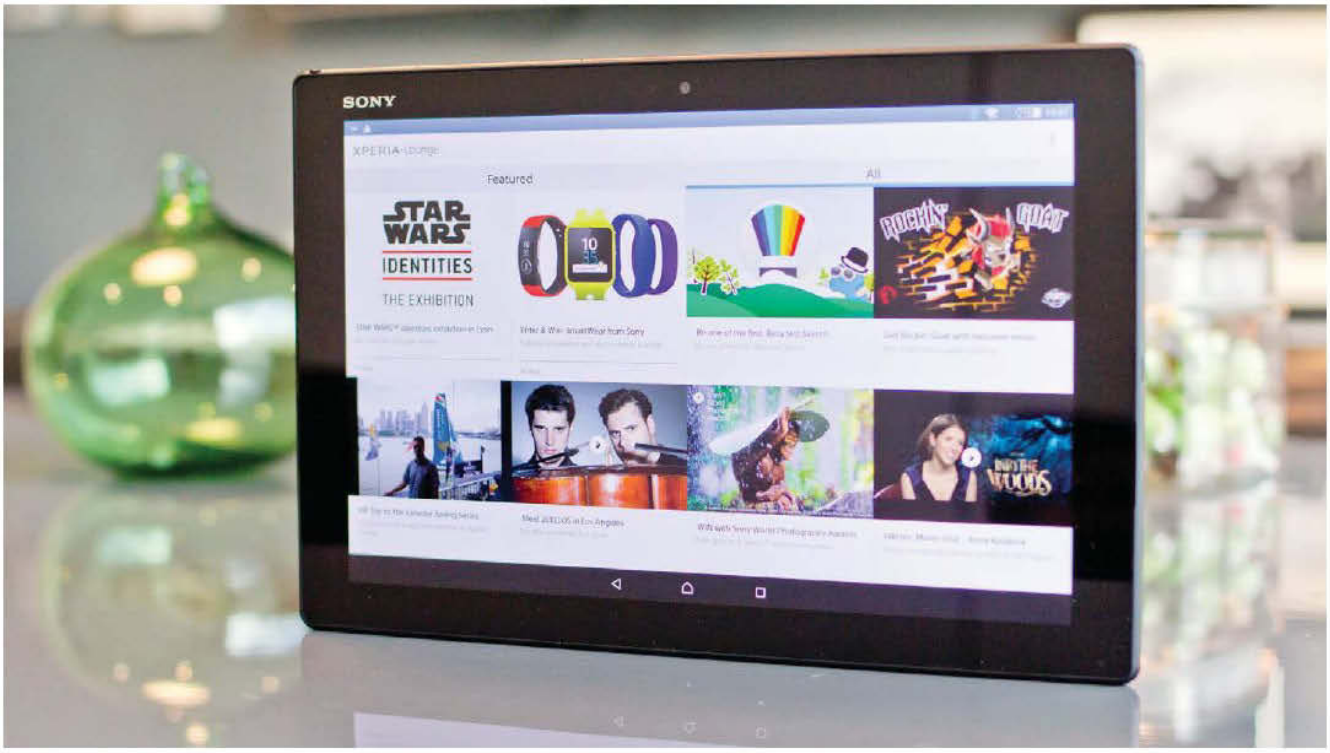
For software, the Xperia Z4 Tablet runs Android 5.0 Lollipop and Sony adds its own user interface which doesn't really have a name.

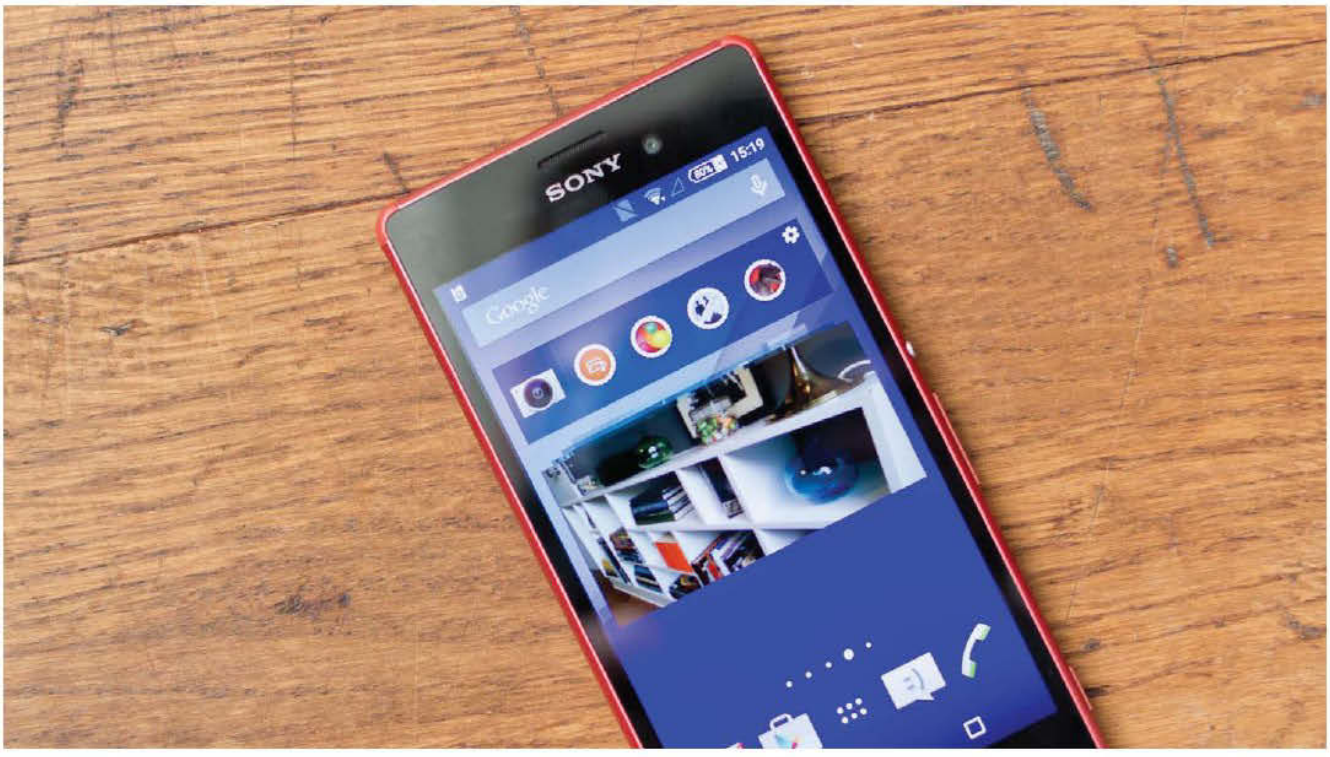
Sony has kept things quite vanilla meaning the experience is close to that of a Nexus device running stock Android. There's the Lollipop two-stage notification bar and card-style recent apps menu. The software was slick and responsive during our time with the tablet.

The firm preloads its own apps including Walkman, Album, PlayStation and Lifelog. Our sample also had Microsoft Word, Excel and PowerPoint in pride of place on the home screen.

Xperia Lounge offers silver- and gold tiers with the top level reserved for Z devices. Sony promises content including music, video, cloud storage, stickers, themes and software upgrades.

The Z4 Tablet includes PS4 Remote Play, enabling you to play PlayStation 4 games on the device from the console over the same Wi-Fi network.





Hands-on at MWC: Sony Xperia M4 Aqua

A mid-range smartphone with some premium features, the M4 Aqua is an appealing Android phone

€299 • sony.co.uk

Sony didn't announce the Xperia Z4 flagship smartphone at MWC 2015, but we're impressed by its new mid-range device. Here's our Sony Xperia M4 Aqua hands-on review.

The Xperia M4 Aqua is a follow-up to the M2 Aqua, which also had a non-waterproof version. There was no Xperia M3 in any shape or form, which is a little confusing but let's move on.

The Xperia M4 Aqua will cost €299 and arrive in 'Spring 2015'. Although we're waiting for a UK price

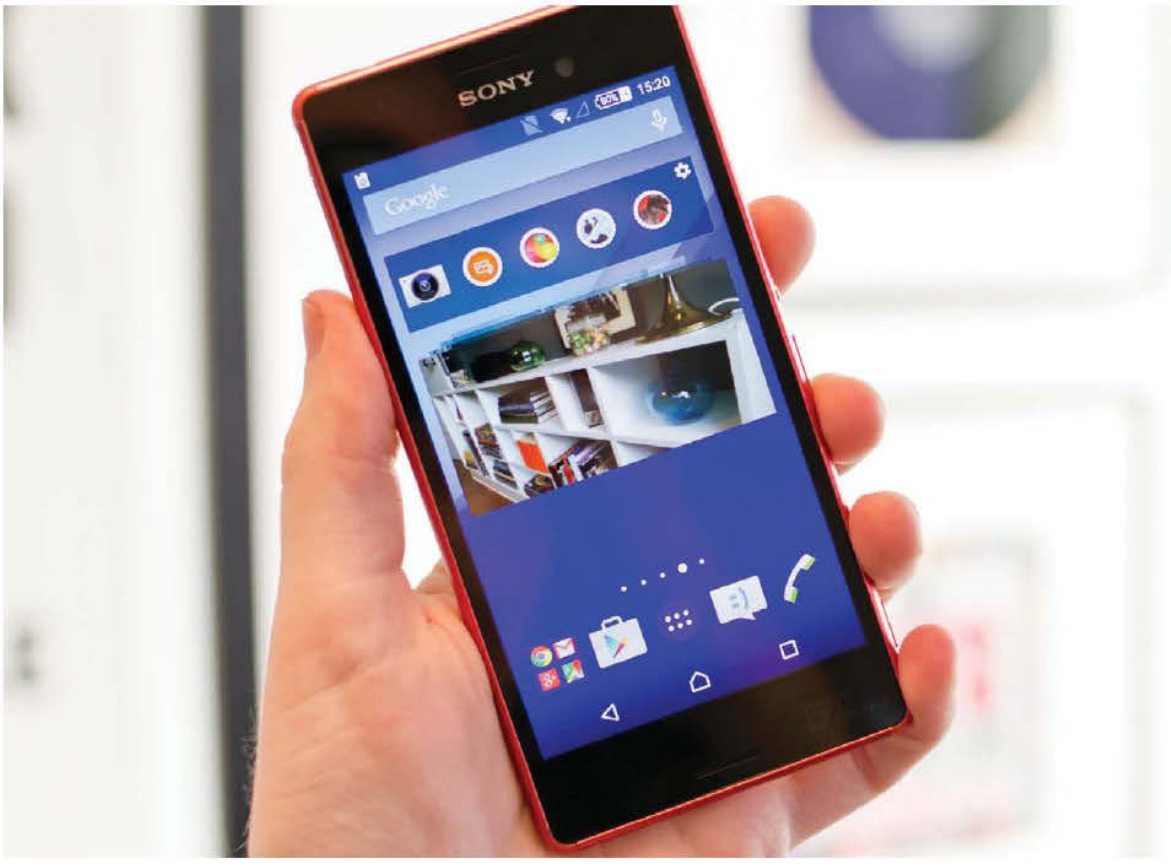
from retailers, it looks as though it will be cheaper than the HTC One mini 2 but more expensive than the impressive Honor 6.

Design and build

With the M2 Aqua, Sony brought the dust- and waterproofing which was previously reserved for the high-end Z range to a cheaper smartphone. It's got an IP68 rating which is the highest available and now the Micro-USB no longer requires a fiddly flap.

The device has a similar design and feel to the Z3 smartphones including a glass rear cover and protective nylon corners making it feel more premium than the price suggests. The Xperia M4 Aqua is thin and light for a mid-range phone at 7.3mm and 136g.

The Xperia M4 Aqua will be available in black, white, silver and coral.



Hardware

This is Sony's first smartphone with a Qualcomm Snapdragon 615 octa-core 64-bit processor and there's also 2GB of RAM, 8GB of internal storage and a microSD card slot. Not bad for the price, and performance seemed good during our time with the phone. We will test this properly asap.

The screen has jumped from 4.8in with a qHD resolution to a larger 5in IPS display with a 720p HD resolution. You're getting a decent screen for a mid-range smartphone with a pixel density of 294ppi.

Mid-range smartphones tend to scrimp on photography but the Sony Xperia M4 Aqua has a 13Mp rear facing camera with Sony's Exmor RS sensor and a 5Mp wide angle lens snapper at the front for selfies. Both seem decent but we'll update this after some proper testing.

Another thing we can't test with a short hands-on play is battery life but Sony touts two days of usage from the Xperia M4 Aqua. When in Ultra Stamina Mode, the device can run for a week on core functions, according to the firm.

Software

Like the Xperia Z4 Tablet, the smartphone runs Android 5.0 Lollipop which is the latest version with Sony's own user interface which this time around uses many stock Android elements like the recent apps menu and dropdown notification bar.

We found the software to be smooth during our time and we like the fact Sony hasn't gone mad with customisations.

As per usual, Sony preloads its own apps such as Walkman and PlayStation but you'll have to opt for a Z2 or Z3 handset if you want features like High-Res audio support and PS4 Remote Play. Things are a little more basic on the M4 Aqua.

Hands-on at MWC: Nokia N1

An iPad mini lookalike that should have a much lower price tag, we get hands-on with the Nokia N1 tablet

Price TBC • nokia.co.uk

Nokia's stand on the MWC 2015 show floor was largely dedicated to the new Nokia N1 tablet, which takes on the iPad mini with a similar unibody aluminium design and the same 7.9in screen size. Despite being launched in November 2014 it was our first chance to spend some time with the device, as it's currently available only in China.

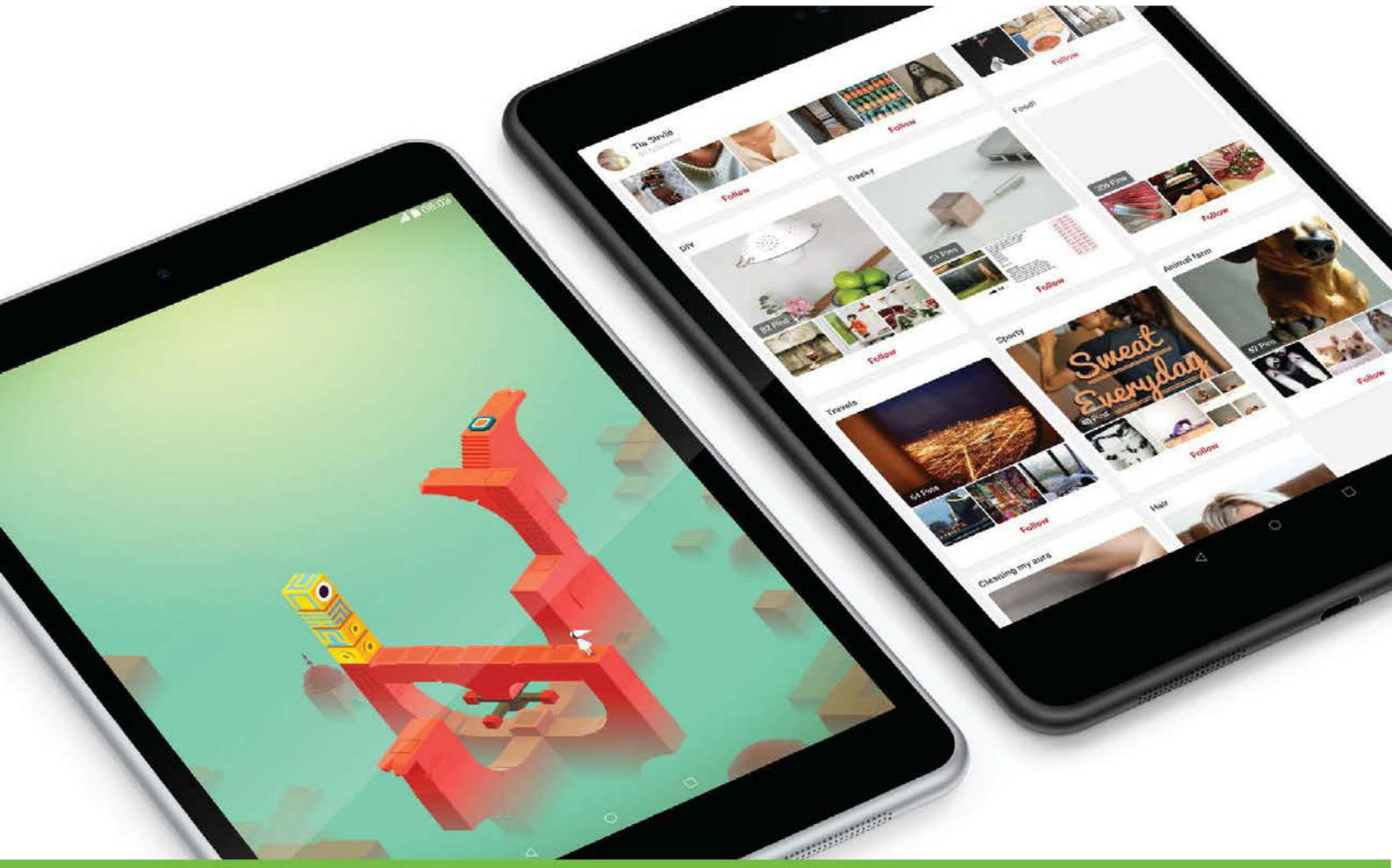
Design and build

Despite the Nokia representative's insistence that the N1 tablet has a unique design like nothing we've seen before, it's quite clear that the N1 looks a lot like Apple's iPad mini. Everything about it seems to

borrow design cues from Apple, from the shape of the buttons to the drilled speaker holes on the bottom (you'll also find those on the new Samsung Galaxy S6).

Thankfully, though, we love the iPad mini's design, and therefore also find the Nokia's sleek, rounded, unibody design to be very attractive. It's made with anodized aluminium, and is delightfully slim at 6.9mm, which is slimmer than the iPad mini's 7.5mm. It's also light, at 318g, so slightly less than the 331g of the Wi-Fi-only iPad mini 3.

The Nokia N1 doesn't have a physical home button like the iPad mini 3 though (and no fingerprint sensor either). It comes in two colours: Natural Aluminium or Lava Gray, which is basically just a fancy way of saying silver or black.



Hardware and specs

The display of the Nokia N1 is 7.9in, just like the iPad mini, and has a resolution of 2048x1536, which equates to 326ppi, identical to Apple's Retina display on the iPad mini 2 and 3. It's made with Gorilla Glass 3, and uses zero air-gap tech to reduce reflectiveness and increase contrast.

Nokia has equipped the N1 with an Intel 64-bit Atom processor clocked at 2.3GHz which should prove to be speedy, though possibly not as fast as the iPad mini 3's A7 processor but we'll have to wait and see. It's paired with 2GB of RAM and has PowerVR G6430 graphics. We're looking forward to putting the processor and graphics chip through their paces in our benchmark tests when we get the N1 back to our labs in the UK.

There's 32GB of built-in storage but no microSD card slot for adding additional space.

Connectivity includes 802.11ac Wi-Fi and Bluetooth 4.0. There's no 4G LTE version yet. The battery is an impressive 5300mAh, and the charging/syncing cable uses the new reversible USB Type-C connector which makes things less fiddly.

The camera on the rear of the Nokia N1 is 8Mp and features autofocus, while the 5Mp front-facing camera has fixed focus but should be good for selfies if using a tablet for photography is your kind of thing. It's also capable of capturing 1080p video.

Software

The Nokia N1 tablet runs Android 5.0 Lollipop and comes with the Nokia Z Launcher, which seems to be an acquired taste that's dividing opinions.

Personally, I really like seeing a list of the most commonly used apps on the home page, and being able to search for apps or search the web by drawing letters on the screen – it worked brilliantly during our testing. We'll need to spend some more time with this latest iteration to determine how well the prediction system works, though. It's designed to learn which apps you use and when and then present the apps it thinks you want to launch on the home screen.

If you're not keen on the Launcher then thankfully it's optional, so you can always return to stock Android if you prefer. If you're curious about the Nokia Z Launcher it's actually available in beta from the Play Store to try out on your Android device.

Price & availability

Unfortunately, right now, the Nokia N1 is only available in China. Nokia has said that it will launch elsewhere in the future, though, and when it does we expect it to be quite a popular choice of tablet. It could be priced at under £200, so we expect it'll be significantly cheaper than the iPad mini 3's £319 starting price.

Hands-on at MWC: LG Watch Urbane (& LTE)

LG announces two new luxury smartwatches at MWC, with both poised to kill the Apple Watch

Price TBC • lg.com/uk

LG has announced two new smartwatches with a luxury feel. One can even make phone calls. Here's our LG Watch Urbane and Urbane LTE hands-on review.

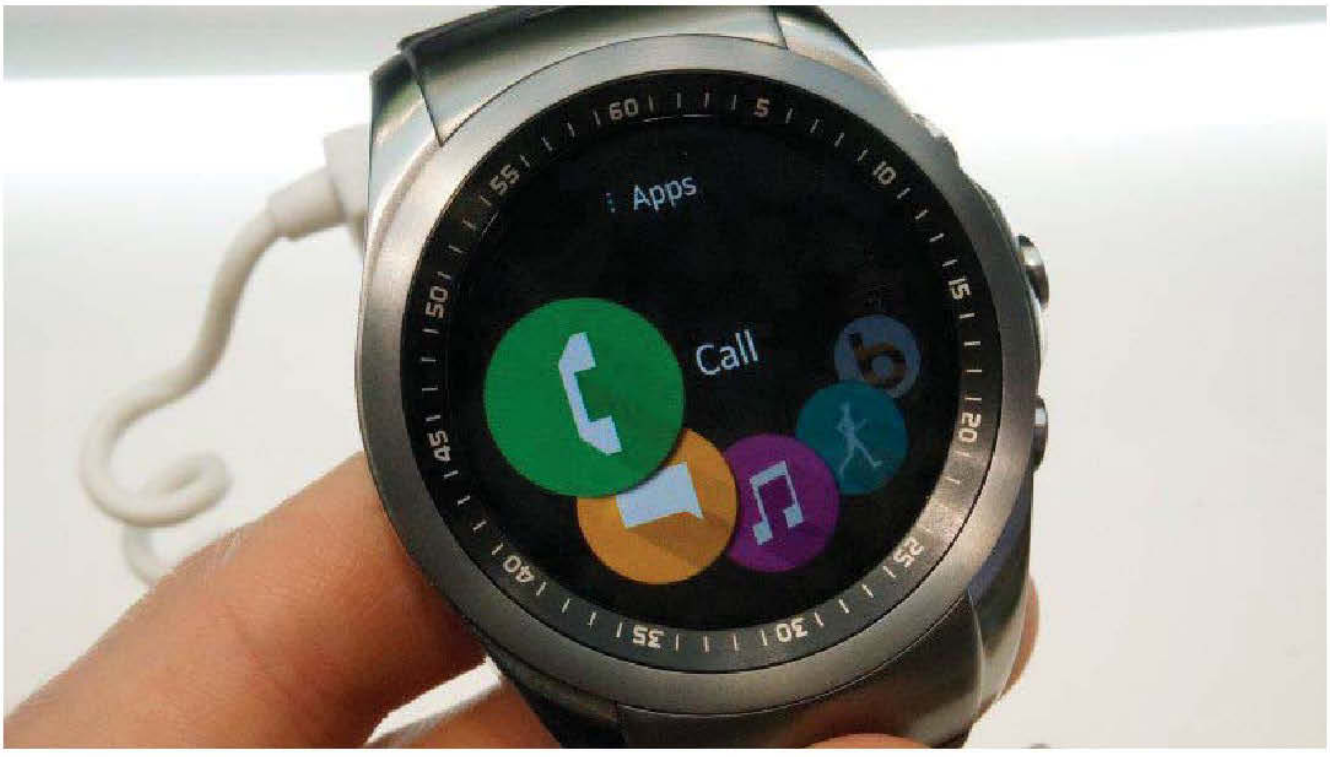
As one of the first makers of an Android Wear smartwatch, it's no surprise that we have various models to choose from. The new LG Watch Urbane and Urbane LTE drop the 'G' from the name, but look very similar.

This is strange but nevertheless what LG has decided to do. It seems a number of new smartwatches with a more high-end design are arriving to compete with the Apple Watch, which will launch in April.

Looking very much like its predecessor, the LG Watch Urbane has been upgraded to a full metal casing, which will be available in a nice silver option and a blingtastic gold. You'd think that the LTE model is the same but with added mobile connectivity, but it's actually quite different.

Its design is similar but chunkier and has three buttons on the side although the screen is still touch-sensitive. The Urbane LTE will only be available in silver, though, and has a less in-your-face matt finish. An issue is that both are big watches, so anyone with a small wrist is likely to find them unwieldy. Each offers an IP67 dust- and waterproof rating.

Apart from the design, the Watch Urbane and Urbane LTE remain the same as the impressive G



Watch R so they both use a round 1.3in P-OLED screen (320x320), a Qualcomm Snapdragon 400 processor and 4GB of internal storage. They also have the same heart rate monitor on the underside which is on the G Watch R and other sensors including a barometer, accelerometer and compass.

However, while the regular model has 512MB of RAM, the LTE model gets double at 1GB and it also has a larger battery at 700mAh compared to 410mAh. As well as 4G LTE connectivity, it offers NFC and Wi-Fi which you won't get on the regular model or other smartwatches in general for that matter.

If you don't mind the size, both models are desirable devices but the price which is always so important is yet to be announced for the LTE model. Expansys has the Urbane up for preorder at £299 so the LTE is sure to fetch an even higher price.

As mentioned earlier, the Watch Urbane runs on Android Wear so there's no change compared to

LG's previous smartwatches. However, the Urbane LTE runs the firm's own 'Wearable Platform' which is based on webOS.

You can still interact with it with the touchscreen but the buttons provide a quick and easy way to access certain things. The top button opens up quick settings where you can switch functions like location, NFC, brightness and other things. The middle button simply switches between the watchface and apps list while the bottom one is a back button unless long pressed in which case it automatically dials a preset number and sends the location of the watch for emergencies.

The interface is easy to use and whether you'd want to or not it can make calls thanks to the mobile connectivity and the built-in microphone and speaker. We've not been able to test this out at MWC. There is a bunch of apps preinstalled including a music player and fitness tracking for various sports such as golf and trekking.

The NFC inside can be used for payments and while we've only spent a short amount of time with the LG Wearable Platform, our initial impressions are very positive.

Hands-on at MWC: Huawei Watch

One of the most talked-about devices at MWC, the Huawei Watch came as a very nice surprise

Pre-order from £349 • huawei.com/uk

The recent Apple Watch event has caused quite a stir, but the Huawei Watch could be about to give it a run for its money. We grabbed a hands-on with the most talked about wearable at MWC.

With the Apple Watch coming soon, we've seen a lot of new smartwatches arriving with a more premium design and finish. We were expecting

them from the likes of LG, but Huawei has shocked everyone with its gorgeous Huawei Watch.

The firm certainly could have, and probably should have, come up with a better name for the device but when it looks this good we don't really care. Perhaps the Chinese tech company wants to compete directly with Apple by simply branding it with the name and the type of device it is.

What we don't know when it's going to launch, however our prediction of the £300 mark to match the new LG Watch Urbane looks pretty good. MobileFun has announced the black and silver models will cost exactly that while the gold option will cost £50 more.

We got a good fondle with the silver model but the Huawei Watch will also be available in a nice looking black model and a shiny gold one for those after a more bling finish. There are also two straps

to choose from, either leather or stainless steel. Interestingly, Huawei has places the physical button at 2 o'clock rather than 3 and this seems to make sense meaning you don't need to twist your wrist as much to push it (the wrist not wearing the device).

Like many smartwatches, the Huawei Watch is big so you've got to be prepared for this – just take a look at it next to the Withings Activité. It seems no one is following Apple's lead of producing two sizes for those with smaller wrist which is a shame.

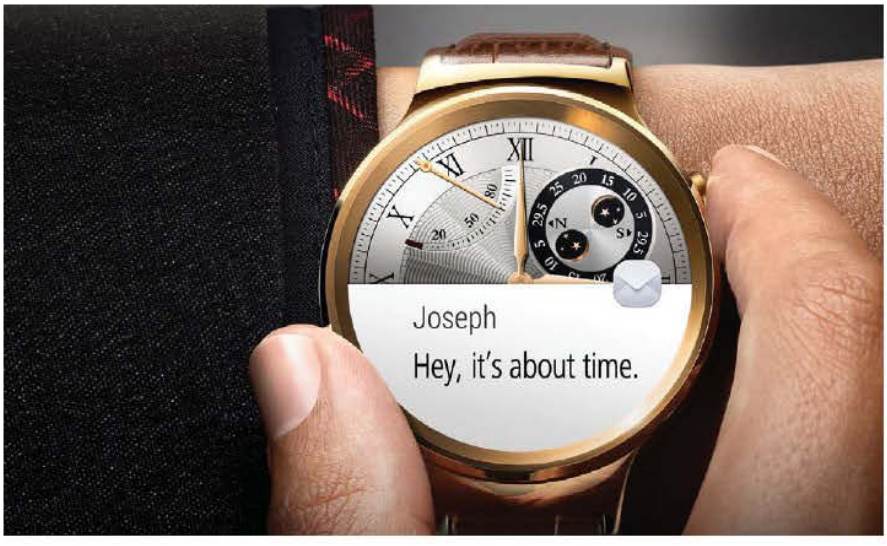
The stainless steel case and sapphire crystal front look great, even if the device is a bit chunky at 11.3 mm. We're used to some Huawei devices being cheap and made from plastic but this couldn't be further the other way. It's easily one of the most premium and desirable Android Wear wearables around, in fact smartwatches in general.

With specs matching other Android Wear watches, the design is hugely important in differentiating from rivals.

Talking of specs, the Huawei Watch fits in with the standard set of hardware for Android Wear devices. This means it has a Qualcomm Snapdragon 400 processor, 4GB of internal storage, 512MB of RAM and Bluetooth 4.1. It also has various sensors like an accelerometer, barometer and heart rate monitor.

The screen, however, is a little larger than rivals such as the LG G Watch R at 1.4in but this is smaller than the Motorola Moto 360 so it's not the biggest around. Round screens are quickly becoming the norm for smartwatches with a few exceptions like the Sony SmartWatch 3. Huawei's is full round so doesn't have the 'flat tire' effect found on Motorola's.

It looks great although we weren't able to test the display out fully as it was in a demo mode. What we are a little worried about is battery life as the Huawei Watch only has a 300mAh battery which is pretty small. The firm claims it will last for one and half to two days on a single charge so we're looking forward to testing this out.



Hands-on at MWC: Huawei TalkBand B2

Huawei takes a second stab at its TalkBand smartband and Bluetooth headset hybrid

€199 • huawei.com/uk

Huawei has used MWC 2015 in Barcelona to launch a new version of its TalkBand, the wrist-worn fitness tracker that also doubles as a Bluetooth headset. We spent some time with the new wearable on the MWC show floor to bring you our Huawei TalkBand B2 hands-on review.

Design and build

The first thing we noticed about the Huawei TalkBand B2 is that its design has been significantly

improved since the original TalkBand B1, both in terms of the way it looks and the practicality.

There are currently three different designs to choose from: a black version with a plastic strap, a silver version with a white plastic strap, and a gold version with a brown leather strap. We'd be happy to wear any of the three designs on a day-to-day basis, which is not how we felt with the B1. You can also choose from different strap sizes, which is handy for those with particularly dainty or large wrists.

The tech is all housed in the removable portion of the device, which pops out easily when you squeeze the two buttons on the strap and is easy to pop back into place. Again, we were happy to see that Huawei has improved the design to make it easier to remove and replace the earpiece, something we found frustrating with the B1.

Also nice is that the screen becomes completely invisible when not in use, making the TalkBand look more like a stylish bracelet-type accessory than a piece of tech.

Unfortunately, though, we did find that the rubbery portion of the earpiece came off easily and was very fiddly to reattach.

It's been slimmed down a bit compared with the previous model, now measuring 11.8mm compared with 15mm, so that's a plus.

Features

In terms of fitness tracking, the TalkBand B2 has everything you'd expect from a smart band. It'll track

your steps, distance and estimated calorie burn using the built-in 6-axis sensor that detects what type of exercise you're doing, and can also be used to monitor your sleep. All of that information can be accessed from the 0.73in touchscreen, which we found to be pleasantly clear and responsive.

We haven't yet been able to test the accuracy and efficiency of these tracking features, but we'll bring you all of that information in our full review when we get the TalkBand B2 back to our labs.

Then there's the Bluetooth earpiece for hands-free calling. It's beginning to make a bit more sense to us now – certainly more so than talking into your wrist like you're required to do with some other smartbands and smartwatches on the market. But using a Bluetooth headset almost feels like taking a step back in time, when everyone simply uses headphones with a built-in microphone these days Huawei seems to know this – it's launched the TalkBand N1 too which are in-ear headphones that

offer pretty much the same functionality as the TalkBand B2 aside from the touchscreen.

Again, we were not able to test the call quality at the stand at MWC, but we'll report back on that soon.

Connecting to your smartphone via Bluetooth will also mean you can see notifications from your various different apps, as well as reminders, alarms and more.

The TalkBand B2 is also waterproof, and charges via micro USB. The company says it'll take about an hour and a half to fully recharge and last for up to 12 days with no Bluetooth connection or up to 5 days with normal usage and 6 hours of talk time.

Compatibility

The TalkBand B2 is compatible with both Android and iOS, with Android 4.0 or above and iOS 7 or above required. The dedicated Huawei Wear app has a simple, easy to understand interface, presenting data as circles that will fill up as the day goes on, and more in-depth charts if you want a breakdown of the data over the day or month.

Price and availability

We've yet to find out the official UK pricing for the TalkBand B2, but it is 199 Euros for the leather strap version, or 169 Euros for the TPU strap. That means it's more expensive than its predecessor, which was £100, and even then we thought it was a bit pricey. There's no doubt that the new model is more premium though, so paying closer to the £150 or even £200 mark isn't completely unimaginable.

It should be available in 28 countries around the world including the UK at the end of April.

Hands-on at MWC:
HTC Vive vs New Gear VR

HTC and Samsung took the wraps off new VR headsets at MWC. We see how they differ

HTC and Samsung have both announced virtual reality headsets at MWC 2015 that boast some pretty impressive features. Though this might seem like an odd move for HTC, President Peter Chou said that “Virtual reality will become a mainstream experience for general consumers.” The virtual reality race is heating up with products in development from Oculus, Sony and Microsoft. Here’s our HTC Vive vs Samsung Gear VR Innovator Edition comparison.

Design

In terms of design, the updated Samsung Gear VR is 15 percent smaller than its predecessor – thanks to the smaller screen size of the Galaxy S6, which is used as the display (similar to Google Cardboard). This means the headset is useless on its own: you'd only buy one if you have a compatible Samsung smartphone. Speaking of compatible smartphones, there are only two devices that can be used; the Samsung Galaxy S6 and Galaxy S6 Edge.

It uses the same software as the Oculus Rift to power the software and mechanics of VR, compressed into an Android app. The Oculus software makes the Gear VR stand out against its competition, as it was long believed that the Oculus Rift was the best all round VR headset (even though its still in development).

Samsung has tried to combat the issue of comfort, one of the problems with the original Gear VR and headsets in general, by adding mechanical ventilation to make it more comfortable over long periods of use. It also has better weight distribution than the previous generation, which is down to a redesigned strap, according to Samsung. All this equates to a good-looking, sleek VR headset.

The HTC Vive doesn't look as sleek. It looks more like the Oculus Rift developers' kit than a nearly finished product and appears to be wired, as opposed to Samsung's wireless offering. Whether this will change before launch is anyone's guess but looking at how HTC is describing interaction with VR, particularly the ability to walk around a virtual environment, it looks like wires would tie you down.

There's currently a lack of built in headphones, but again, looking at the way that HTC describes its VR experience, we can imagine that the final version will come with headphones. If not, there's a headphone port ready to be used with your own headphones. It's also "really light, so you can wear it for a long time without feeling weighed down", according to HTC.

Display

The Samsung Gear VR Innovator Edition relies on the Samsung Galaxy S6 display – but this is certainly not a bad thing. It boasts a 2560x1440 resolution on a 557ppi Quad-HD display, running at 60 frames per second (fps).

It's interesting that Samsung has only chosen 60fps as that is (according to developers) the minimum frame rate to not cause nausea. To put this into perspective, the Oculus Rift DK currently runs at 75fps and that may increase again before its consumer launch.

The HTC Vive display is just as good, if not better. While the resolution is lower than the Gear VR, running at 1200x1080 per eye, the Vive utilises two separate screens. This coupled with the frame rate, a beautifully smooth 90 fps, eliminates jitter and gives the Vive “photorealistic imagery” according to HTC.

Unique features

One unique feature of the Gear VR is that it uses the Galaxy S6 as its display. The reason for this is to offer the VR Gear headset cheaper – and we’re sure people forking out for the S6 will appreciate that.

As well as Samsung’s upgrades to the Gear VR’s design, it has also added one other feature – a USB cable. Using the Galaxy S6 as the display is both a blessing and a curse, as it means draining your phones battery (and it already has a smaller battery

than the S5) so this way, you can charge your phone and use the headset at the same time. With this phone charging blessing comes a price though; you'll be tethered by a wire. You can still use your Gear VR wirelessly but intensive VR sessions might force you to reach for the charger.

While the Gear VR uses Oculus technology, the HTC Vive does things a little differently. Where the Gear VR uses your smartphones various sensors to track your head movement, it doesn't track your position in a room. Essentially, the Gear VR is a device that most people would use when sat down but the HTC Vive is something you'd use if you wanted a complete virtual reality experience, interacting with the virtual environment around you.

The device is powered by PC instead of a smartphone and uses a gyro sensor, accelerometer and a laser position sensor that allows the device to track head movements as precisely as one tenth of a degree. That, coupled with the Steam VR base station will allow you to walk around a 15x15 foot room and interact with the virtual space instead of using a controller, a la Oculus Rift.

HTC has also claimed to have fixed the issue with virtual reality and controllers – the Vive will come with a pair of "wireless controllers" that are simple and intuitive, HTC claims. Apart from that, it gave no detail as to what these controllers will look like – could they be gloves? We'll have to wait and see.

Content

Samsung's VR offering isn't that great at the moment. Even though the original Gear VR has been out since December, most of the content available

seems to be mainly demos and 'experiences'. The good news is that Samsung will support the Oculus Store once it launches and that will give consumers much more choice, but the issue is that no one knows when that will be. Oculus is keeping tight-lipped on that one.

HTC has partnered with Valve, creator of Steam, to bring out the HTC Vive. Working directly with Valve means that a selection of compatible VR games available on Steam would be available for the Vive, but this has not yet been confirmed. While on the subject of Steam, the HTC Vive is the SteamVR device that Valve teased on the Steam Store last week. Google, HBO and Lionsgate are already working on content for the machine, which sounds a lot more promising than what Samsung is currently offering.

Price and availability

There isn't yet any word on a release date or pricing for the Gear VR Innovators Edition, but history suggests that it'll be around the same $200 price as its predecessor. As it's going to be compatible with the Galaxy S6 and S6 Edge, which are both due for release in April, it's fairly safe to say that the Gear VR will launch around that time too.

HTC hasn't yet given us a specific release date for the consumer edition of the Vive, apart from the fact that it'll be out by the end of this year. It has however confirmed that a developer kit will go on sale shortly.

The virtual reality headset race has begun and with only prototypes of the Oculus Rift, Project Morpheus and Microsoft HoloLens available, the Vive and Gear VR are kicking off the party early.

Should you buy cheap grey-market tech?

The pros, cons and risks associated with buying and importing cheap phones from overseas

If you're in the market for a cheap phone or other tech you may have noticed the crazy-cheap prices on sites such as GeekBuying, Coolicool and GearBest, but are these sites dodgy and should you buy from them? Here we examine the pros, cons and risks associated with buying grey market tech.

For a long time now we've been talking about Chinese smartphone makers producing high-end phones with mid-range or even budget prices, which rival the far more expensive brands we're familiar with in the UK, for example Samsung, Sony, HTC,

We've not heard of Doogee until recently, but its F1 Turbo Mini is a great-value 4G phone – we've reviewed it on page 99

LG and Motorola. But few of these devices are available to purchase through UK network operators or retailers, and if you want to get your hands on one of these handsets (or any other tech sold overseas), your options are limited to eBay, Amazon (sometimes) and the grey market.

You may have noticed we have recently begun reviewing some of these products at Android Advisor, supplied to us by GeekBuying, Coolicool and GearBest, so we have first-hand knowledge of dealing with these sites. While our target audience here is largely UK consumers, we have readers in all corners of the world.

In order to provide the best information possible in our best smartphone round-ups and the like, we want to ensure we are covering the best range of products – and that includes names such as Xiaomi, Doogee, Gionee, UMI, Elephone, Ulephone and so on, which you (and, indeed, we) have never come across before, but are gaining more market traction both inside and outside the UK than ever before. Not only do these phones have great specs and low prices, they are typically dual-SIM too, which is

becoming more and more popular in the UK. But until these brands officially release products to the UK market, the grey market is often your only option if you wish to buy them.

What is the grey market?

First, let's clear up an important issue: the grey market is not illegal. It is sometimes referred to as a parallel market, which is in fact a clearer representation of what it is. The grey market is a channel through which goods are imported by distributors not authorised by the manufacturer. It allows UK consumers to purchase products that are not intended to be sold in the UK market, and at the lower prices typically paid overseas.

The grey market differs from the black- or underground market in that these goods are

not illegal to buy in the UK. They are merely not intended to be sold here. However, while you are not breaking the law by buying grey market goods, there are some points you may like to consider, as we'll outline below.

UK shipping and Customs charges

While grey market sites offer free shipping to the UK, they do not pay any import duty charged by UK Customs when sending products from their depots. They ship to a number of countries and each has different import rules.

"When you buy from GeekBuying, you are importing, and you are the importer who is responsible for the goods when the goods pass through Customs in your destination country," it states on GeekBuying's terms and conditions.

> **Expect to pay import VAT, and include it in your calculation of the device's total price**

So, Customs charges are your problem. And if Customs gets in touch to say it has your package then you won't receive it until you have paid up – in our experience you have 20 days to do so. If you fail to do so your package may be destroyed; if it is returned to sender you will find yourself responsible for the return costs.

Whether or not your parcel is picked up by Customs is very much a lucky dip, but legally the charges should be paid. Our best advice is to expect to pay import VAT, and include it in your calculation of the device's total price.

You can read more about calculating Import VAT over on the gov.uk website.

It's worth pointing out, however, that some grey market sites have EU- as well as Chinese warehouses. For example, Coolicool has warehouses in Germany, Spain and Italy. On buying products residing in these warehouses it says you won't have to pay Customs charges.

Grey market sites are usually willing to meet any special packing or labelling instructions you may have. For those products sent by airmail you may find your product marked up as of low value or a gift, although you should know that this will not make them exempt from UK Customs charges if they are found and opened.

Packaging

In our experience grey market products are incredibly well packaged, with monster bubble wrap. (Nobody in the office knows the correct name for this type of packaging, although there were some interesting suggestions, so we took a photo and you can see for yourself what it is.) The chances of your device being damaged during delivery is very small which, given the postage charges, is in everybody's best interests.

Delivery times to the UK

Don't expect next-day delivery from these websites, although delivery is faster than you might expect. For example, Coolicool sent us an Elephone P5000 last Wednesday, and we received it on Monday. This was sent via DHL, which is the fastest method of delivery,

but products may also be shipped via regular- and registered airmail, which takes longer – perhaps as long as two weeks.

Also keep in mind that if your parcel is intercepted by Customs you should expect a longer delay.

Product pricing

When looking at a product on a grey market site look for a toggle at the top of the page to switch the currency to UK Sterling. Prices will otherwise be listed in US dollars. If there is no way to switch the currency you can calculate the approximate UK cost by using Google Search's built-in currency converter. Just type into the search bar 'convert $X to £' and hit Enter for an instant conversion.

You'll find prices are significantly cheaper than they are in the UK. Part of the reason for this is that products sold in the UK often have a significant markup in price. No doubt you'll have noticed that a product may go on sale in the US for $300, and at the same time in the UK for £300, despite the fact right now there is $1.54 to the pound. We've all heard the argument about US prices not including local taxes and VAT, but even so there is clearly some markup in the price. The grey market removes this markup, allowing UK consumers to buy goods at overseas prices.

One thing you should note, though, is that prices can go up and down on a daily basis. You'll drive yourself mad wondering what's the best price, so instead look at the current price and decide whether it's a price you're willing to pay for the goods on offer, then just buy the thing.

Will these products work in the UK?

Given that these products usually aren't intended to be sold in the UK, it's understandable that some may not work as expected over here. However, given the correct mains adaptor, the majority of tech products will work in any country – it's no different to taking your tech abroad when you go on holiday. In our experience most grey market sites will also supply a three-pin adaptor if you let them know you need one.

One type of device with which it's particularly important to check the specs is smartphones. UK networks operate on different frequency bands to overseas operators, so it's crucial that you check which bands a phone supports and on which bands your network operates. If a phone claims to support the fastest 4G it will be useless to you if your own network doesn't support the frequency, for example.

In the UK the big four operate on the following frequencies: EE operates on 1800MHz 2G, 2100MHz 3G, and 800MHz, 1800MHz and 2600MHz 4G; Three operates on 900MHz and 1800MHz 2G, 2100MHz 3G, and 1800MHz and 2600MHz 4G; Vodafone operates on 900MHz and 1800MHz 2G, 900MHz and

> **Are these products fake? Would you know if they weren't?**

2100MHz 3G, and 800MHz and 2600MHz 4G; O2 operates on 900MHz and 1800MHz 2G, 900MHz and 2100MHz 3G, and 800MHz 4G.

If you're buying a phone, tablet or other Android device, also keep in mind that it will most likely be rooted. That's not a particular concern for tech enthusiasts (some may even appreciate the fact they won't have to root it themselves), but newbies should note this rules out OTA OS updates.

On the subject of OS updates, there is no guarantee any updates will be offered. However, since writing our UMI Zero smartphone review UMI got in touch to let us know that an update was available. Whether software updates will be available for your device will very much depend on the device in question.

Another key consideration is not whether a product will work in the UK but whether it is allowed to work in the UK. It's your responsibility to check the legalities surrounding the shipping of a specific device to the UK – if it's legal to buy in China but illegal to ship to the UK then that's your problem.

Are these products fake?

Not according to Coolicool, who claims its products are 100 percent authentic. Would you know if they weren't? Probably not.

Returns policies

This is perhaps the biggest risk of buying from the grey market: what if your device is faulty? When buying products from overseas you are not covered by EU regulations. Bear in mind that when dealing with customer services the language barrier may also become an issue, depending on the site in question.

Receiving faulty goods is actually something we've experienced first hand, having received a faulty drone from GearBest. We've attempted to return the product three times and each time it has been redelivered to the office.

On the whole devices will not be faulty. As we've mentioned they are incredibly well packaged, and each product is checked before it is sent out to avoid the dramas surrounding returns. Even so, it's important that you check the returns policy of the site in question before you buy.

Using GeekBuying as an example, it offers a one-year warranty on all consumer electronics, meaning you can return the products for repair up to one year after its delivery date. If products have been mis-used, taken apart or water-damaged the warranty will be void, and it won't cover motherboard- or screen replacement. If a product is scratched or its appearance damaged GeekBuying will deduct 20 percent of the value when providing a refund.

GeekBuying pays the return costs for products that are dead-on-arrival, but you will be liable for some of the cost when returning items under warranty. Within the first month GeekBuying will

> **"We've attempted to return a faulty drone three times and each time it has been redelivered to the office"**

pay the shipping costs, but you'll be refunded for them partly in GeekBuying coupons and partly in cash to your PayPal account. Between one- and six months you will have to pay to return the item, but GeekBuying will ship you the repaired item for free. Between six- and 12 months you pay the cost of returning the item and having it redelivered following the repair.

If an item is faulty on arrival you have two days to get in touch with customer service, providing them with photographic evidence. If the packaging is faulty you will also need to file a complaint with the

> **You might get a cheap phone, or you might get a headache that won't disappear for several weeks**

courier. If an item is of high value you may be asked to send it back to GeekBuying before they are able to issue a refund or replacement (and there is always a chance it could go missing on its return journey).

If you've been sent the wrong item and can provide photographic evidence, GeekBuying will offer to refund you 10 percent of the item value because it's a cheaper solution than you returning the item and it shipping you the correct item. If you're not happy with this it will of course send you the correct item at its cost.

If you're returning an item simply because you don't like it (you have up to seven days to decide), you will be responsible for the round-trip shipping. That will be expensive, so make sure you really want a product before you click to buy it.

Conclusion

Buying grey market tech is not for everyone, and it's clear there is some risk involved. You might get a great deal on a cheap phone, or you might get a headache that won't disappear for several weeks. Many people have great experiences in buying grey market tech (us included), but there are also some horror stories to be told. Now armed with the facts you can make an informed decision about whether buying grey market tech or cheap goods from China is an attractive solution for you.

Review:
ZTE Blade S6

This dual-SIM iPhone 6 lookalike runs Android Lollipop and offers 4G LTE at a great price

£156 • zteuk.co.uk • ★★★★☆

ZTE's Blade S6 is a desirable mid-range Android Lollipop phone with 4G connectivity and some smart features. At a quick glance you might even mistake it for an iPhone 6.

Price and UK availability

ZTE's Blade S6 smartphone has been available in the UK since 10 February. Our review sample was

shipped to us from GeekBuying.com, which sells the Blade S6 for £156.84. It's also given us a coupon code that will get you an extra $30 off at checkout: 0307ZT. If that takes your fancy, first read our advice on buying grey-market tech (page 77).

Alternatively you can pay a little extra and grab the ZTE Blade S6 from Amazon for £169.99. Both models are sold SIM-free and network-unlocked.

Design and build

The name might lead you to expect the Blade S6 to be a copy of the Samsung Galaxy S6, but it's much more iPhone 6 in design. The clean white front with circular home button, rounded corners and curved screen edges is certainly reminiscent of Apple's flagship smartphone. Even the SIM and microSD slots are very iPhone-like, not that there's much scope for differentiating there. And the MiFavor UI's lack of an app tray is just Apple all over.

For a budget- to mid-range phone the ZTE Blade S6 is good-looking, at least from the front with its slim bezels and slick design. But this unibody phone is built from a very slippery white and silver plastic, and compared with the iPhone 6 has a larger, lower-resolution 5in screen and slightly bigger and chunkier – but still commendably thin for the price – 7.7mm chassis. The weight is identical though, with both phones coming in at 129g.

The home button might be circular, but as soon as you put the phone on charge or get a new notification it glows a cool blue. That constant glow can be irritating when charging the phone overnight, and you should note there's no fingerprint sensor built into this button either. On either side sit touch-operated Back and Multitasking keys, and you can switch these around if you'd rather have the Back button on the right than the default left.

That 5in screen is a usefully bright IPS panel, which offers realistic colours and excellent viewing

angles. The ZTE Blade S6 might have only an HD (720x1280) resolution, but its 293ppi pixel density isn't far behind the 326ppi of the iPhone 6, and it's quite acceptable for the price.

A small speaker is found on the rear. If you're left-handed or place the phone screen-up you'll find it easy to muffle, but it otherwise does an acceptable job. There's also a headphone jack up top, which lets you take advantage of the Blade's FM radio.

Hardware and performance

Equipped with a 1.5GHz Snapdragon 615 64-bit octa-core (quad-core 1.7GHz Cortex-A53, quad-core 1GHz Cortex-A53) processor, Adreno 405 graphics and 2GB of RAM, performance is very decent for a mid-range phone. The ZTE Blade S6 also feels nippy in operation, with no sign of lag when launching apps or moving between home screens and menus. In real-life use we couldn't fault it.

We ran our usual trio of synthetic benchmarks, recording 658 points in Geekbench 3 single-core

and 2420 multi-core. General performance is therefore more iPhone 5s (2556 points) than iPhone 6 (2794), and pretty much on par with last year's flagship LG G3 (2465).

We also ran the GFXBench 3.0 graphics test, with the ZTE Blade S6 turning in 25fps in T-Rex and 11fps in Manhattan, matching the performance of the Samsung Galaxy Note Edge and HTC Desire Eye.

Lastly, in the SunSpider JavaScript test the ZTE recorded 1088ms. In this test its nearest rival is the Samsung Galaxy S4 with 1092ms. That's not bad for Android, and especially not at a touch over £150.

In terms of storage the ZTE Blade S6 has 16GB built in, and it has microSD support up to 32GB. That will be plenty for most users, although you can also make use of cloud storage with Google's own- and third-party apps.

Connectivity

Not only is this ZTE Blade S6 a 4G LTE phone, but it supports dual SIMs as standard (both Nano-SIMs). Note, though, that the data connection is accessible by the first SIM only on this dual-standby handset.

As with all phones you should check the ZTE Blade S6 will work with your network, which we understand may be an issue in the US. ZTE lists support for GSM 850/900/1800/1900MHz, UMTS 850/900/2100MHz, and 4G LTE 1800/2600/900/700MHz.

The Blade S6 also supports dual-band Wi-Fi, Bluetooth 4.0 and A-GPS. There's no NFC, but Alive Share software lets you transfer files and play multiplayer games with nearby compatible handsets.

Cameras

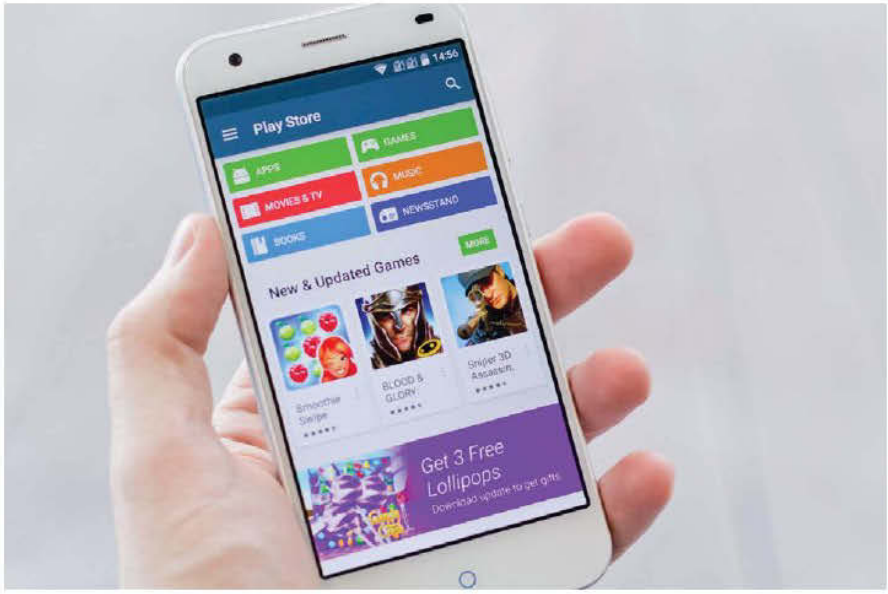
At the ZTE's rear is a 13Mp Sony Exmor IMX214 camera with a 28mm wide-angle lens and f/2.0 aperture that can shoot full-HD (1080p) video at 30fps. We were generally impressed with our test shot and video, which you can see for yourself below. Colours are realistic and detail is sharp, although the LED flash does little to help grainy

low-light photos, and we found video can be rather jerky as you move the camera.

The standard Camera app is rather basic in its Simple mode, with the usual Auto, HDR, Panorama, Beautify and Smile modes. You can also straighten images, remove moving items from view and take group photos in which you can pick the best image for each person in shot. Switch to expert mode and you lose these presets, but you'll get more control over your image in terms of exposure, ISO metering and white balance.

After you've taken a photo you can edit the image to add filters, borders, decorations, doodles and text, and also blur parts of the picture.

At the front of the Blade S6 is a 5Mp selfie camera with f2.2 aperture. The resolution is good, but while



there are Beauty and Smile shot modes there is no real-time preview or ability to adjust the effect.

This is possible through the preinstalled Camera360 app, however. Although it doesn't launch by default when you open the Camera, with Camera360 you can apply filters before you take a photo, easily adjust white balance, ISO and the like, turn on image stabilisation, and choose from a selection of 'cameras' that help you take ID photos, scene shots or simply better selfies. More 'cameras' are available to download, too.

Software and extras

The ZTE Blade S6 is one of the first non-Nexus devices to come with Android Lollipop out of the box. With cheap phones often left behind as new Android updates are released, that's fantastic news.

Over the top of Lollipop is the MiFavor 3.0 UI. The most noticeable difference over standard Android is that it completely removes the app tray, and with all app shortcuts displayed on the home screen its offers a very iOS-like experience. We're not keen on

the approach, but you can use folders to minimise the clutter. MiFavor also provides a number of themes and customisation options.

Several apps are preinstalled. In addition to those mentioned above, these are mostly utilities such as a backup app, Task Manager, 1-Tap Boost and a Clean Master app that lets you manage your apps and memory, and includes an antivirus scanner.

There are also apps for video- and music playback, an FM radio and a sound recorder, Kingsoft's WPS Office for reading and creating text documents, spreadsheets and presentations, a TouchPal keyboard and a 30-day trial of the Route 66 navigation app. All Google's usual apps are also preinstalled.

Mi-Pop enables easier one-handed operation, not that the ZTE Blade S6 is uncomfortable to use in a single hand. Activate Mi-Pop and you can place onscreen a cluster of buttons for returning to the home screen or going back a step, accessing more options or opening Android's multitasking menu.

One of our favourite features of the ZTE Blade S6 is its smart gestures, although we had trouble getting these to work with Mi-Pop enabled. If you shake it twice you'll turn on the LED torch, or hold volume down and make a V gesture in the air to begin playing music. In portrait mode you can hold volume up and lift the phone to open the Mirror app (which is in essence just the front camera); when held horizontally this gesture will launch the camera.

When placed in a dark pocket the Blade S6 will vibrate and ring at max volume; lift it to your ear and you'll instantly answer the call, or you can wave a hand above the screen to mute the ringtone or turn over the phone to reject it. This latter action will also dismiss the alarm. When viewing a text message, lifting the phone to your ear will automatically trigger a call to that contact.

A 'leather case mode' allows the screen to wake or sleep when the case is opened or closed.

Battery life

ZTE fits a 2400mAh non-removable battery to the Blade S6, which in our experience you'll need to charge every day. There is no power-saving mode.

Verdict

At a touch over £150 the ZTE Blade S6 is a great-value Lollipop phone with strong general performance and an attractive iPhone 6-like build. Dual-SIM and 4G LTE connectivity, a selection of smart gestures and a capable camera all add to this phone's appeal, but its battery life is no better than average and we're not so keen on the idea of having all our apps by default laid bare on the home screen.

Review:
Doogee F1 Turbo Mini

Find out why this is the best 4G phone you can get under £100

£82 • doogeemobile.com • ★★★★☆

Doogee is a new name to us, but popular outside the UK. Its F1 Turbo Mini smartphone is a super-sleek, super-budget sub-£100 4G phone. In fact, we'd say the Doogee F1 Turbo Mini is the best budget 4G phone of 2015.

Price and UK availability

The Doogee F1 Turbo Mini is a grey market phone supplied to us by Coolicool.com. If you wish to buy

it from China it will cost £82.49 but may incur Import VAT; we recommend you instead buy it from the European warehouse for £104.27. Read our advice on buying grey-market tech on page 77.

At this price the Doogee F1's closest UK rival is the EE Kestrel, a Huawei-made £99 (plus £10 EE top-up) phone that until now was one of the best cheap 4G phones you could buy in the UK (the Moto E 4G is the other contender – see page 35). Given that the Doogee is network-unlocked, you may find it a preferable option – and for other reasons, too, as we'll outline below.

Design and build

Doogee's F1 Turbo Mini has a very nice design for such a budget handset. The screen bezels are virtually non-existent, and where we would normally expect to find a chunky chassis the F1 is just 8mm thick. With a 4.5in screen the Turbo Mini is very

easy to hold and use in a single hand, and at 112g it's incredibly light, too. It's lighter, and a tad smaller, than the Kestrel.

The slightly curved rear aids its fit in the hand, and the dimpled back panel – not unlike that seen in Samsung Galaxy phones – improves grip. It's much less plasticky in its appearance than the Kestrel, with a glass front, plastic rear and a metal chassis that's visible from the side.

The F1 feels reasonably tough, but the removable rear does mean it rattles somewhat when handled. Prise off this panel and you'll find dual-SIM slots (one Mini, one Micro), plus a removable 2000mAh lithium-ion battery and a microSD card slot that supports up to 64GB.

The screen is identical to that seen on the Kestrel: a 4.5in HD IPS panel with a 960x540 resolution that equates to 245ppi. Colours and viewing angles are good too, which is important when you consider that you're likely to want to stream video over a 4G

phone. It's not the best screen we've ever seen but it's more than acceptable, given the price.

Hardware and performance

Another area in which the Doogee improves on the Kestrel is in performance. The Doogee F1 is equipped with a 1.5GHz MediaTek MT6732 quad-core 64-bit processor and 1GB of RAM. This is not what we might consider a speed demon, but it's very capable when you consider how little it costs.

In Geekbench 3 the Doogee F1 turned in 647 points single-core and 1947 multi-core. It recorded 1133ms in SunSpider, and 25- and 13fps in GFXBench 3.0's T-Rex and Manhattan tests (onscreen, that is, for the F1 failed to complete the offscreen tests and reported that it was out of memory).

Storage is just 8GB, but that's already better than the 4GB we often see in budget phones. The Doogee F1 Turbo Mini also has a microSD card slot that accepts up to 64GB.

Connectivity

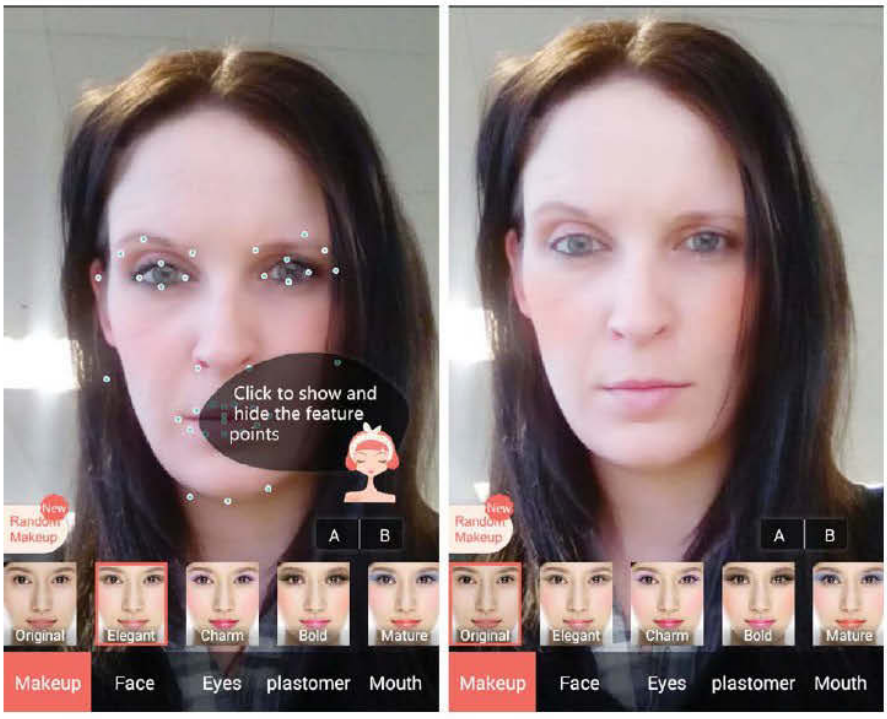
The fact this phone supports 4G is quite amazing, given the price. It's the cheapest 4G phone we've ever tested. If you're buying the F1 in the UK, though, ensure it is compatible with your network. The Doogee supports 850/900/1800/1900MHz 2G, 850/900/1900/2100MHz 3G, and LTE bands 1/3/7/20 800/2100/1800/2600MHz. With a 4G connection Doogee claims it can offer up to 150Mb/s.

As we mentioned earlier, the F1 Turbo Mini is also a dual-SIM phone. This will appeal to many users who want to combine business and home SIMs in a single handset.

Other connectivity options include 802.11b/g/n Wi-Fi, Bluetooth 4.0, GPS and HotKnot, which is a short-range wireless file-transfer protocol that is in essence MediaTek's answer to NFC.

Cameras

At the front of the Doogee F1 Turbo Mini is a 5Mp selfie or video-chat camera. Within the main Camera



app there's a Beauty Face mode that offers a live preview with a slider, allowing you to reduce wrinkles or (oddly) whiten your face.

Switch to CameraBox and you can trigger selfies with a smile or V sign. You can apply beautifying effects in real time, and there's also an age judge mode that examines your pose and tells you how old you look (I really liked it while it was telling me I looked 24, but not so much when it decided I was 34). After you've taken a selfie you can apply make up (saving you the job of doing it yourself – yay!), but some of the effects are understandably quite oriental-looking.

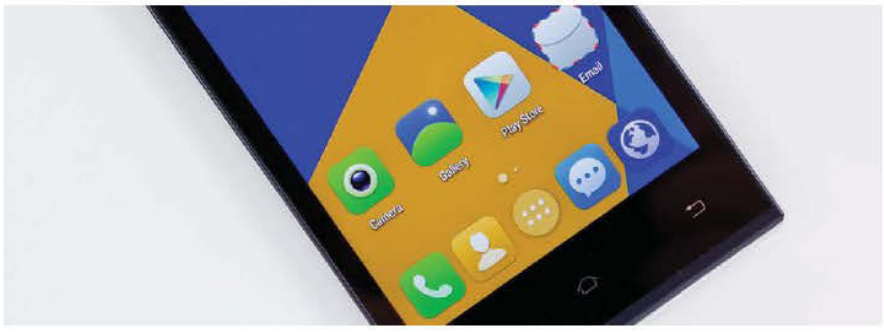
At the rear is an 8Mp camera with an HDR mode, face detection, smile shot, a 40-picture burst mode and more. It supports panorama, picture-in-picture, motion-tracking, multiple-beauty face, multi-angle shots and more.

As you can see from our test shot (which was taken a few seconds after the test shot shown in

our 16Mp Elephone P5000 review – page 114), the sky has been completely blown out and the photo is over-exposed. The image is sharp enough, though, and not at all bad for a superbudget phone. It's better than the 5Mp camera on the Kestrel, anyway.

Software

The Doogee phone runs the latest version of Android KitKat (4.4.4) and supports FOTA updates. The software is largely standard KitKat, with a few additions such as Music and Video apps and the aforementioned CameraBox. Go Keyboard is also preinstalled, and the Doogee supports some smart gestures. Examples include three-finger screenshots, two-finger volume and a double-tap of the Home button to lock the screen from any menu. You can



also use gestures to take a photo, browse photos, skip a song and more.

Privacy options include an app lock feature that lets you lock down specific parts of the phone from unwanted access, plus a Visitor mode, which hides away your pictures, texts and call logs so people can't snoop at your stuff while pretending to borrow your phone.

Battery life

The Doogee F1 Turbo Mini is fitted with a 2000mAh battery that, given the low-power screen and hardware, is more generous than it might sound. After a working day's typical use the battery had 60 percent remaining, suggesting it'll last at least a full day away from the mains and perhaps a little more depending on your usage.

The F1 also has an Ultra power saving mode that can shut down non-essential apps to keep things going as long as possible.

Verdict

We're really very impressed by the Doogee F1 Turbo Mini. At £82 or £104 (depending on how you buy it) this is the cheapest 4G phone we've ever seen. It's better-looking and more powerful than any budget phone has any right to be.

Review:
Elephone P5000

This Samsung Galaxy lookalike promises best battery life and will even charge other phones

£158 • elephone.hk • ★★★★☆

On paper the P5000 is unlike any phone we've ever seen before, with a huge 5350mAh battery that can keep going four days or, thanks to OTG support, even act as a power bank.

UK price and availability

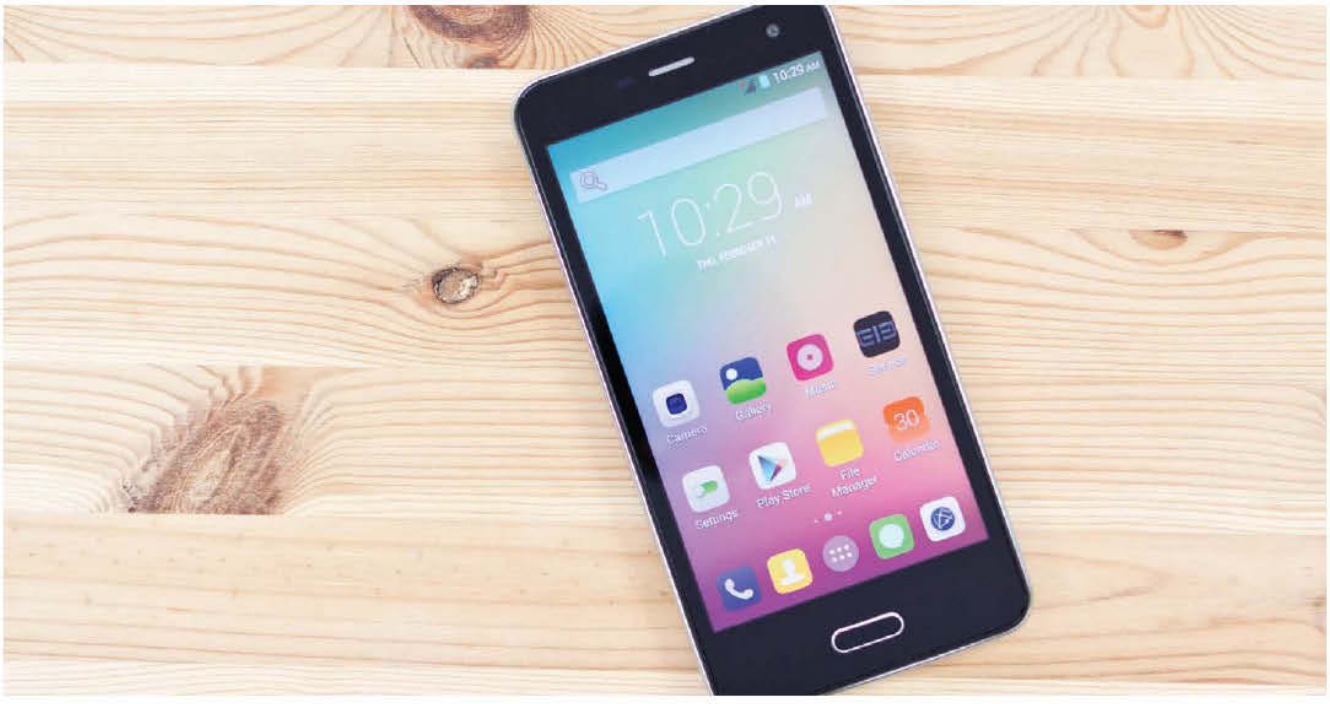
Elephone is not a brand we've come across in the UK before. This is a grey-market phone shipped to us from Coolicool.com. You can buy it from China for

£158.39, or Europe for £208.55. The latter option will cost you an extra £50, but if your phone is picked up by Customs on its way from China you could pay that in Import VAT in any case. Read our advice on grey market tech on page 77 to learn more about the pros, cons and risks associated with buying from overseas.

Design and build

Given that massive 5350mAh battery, we were expecting the Elephone P5000 to be very big and bulky. And clearly it is heavier and chunkier than rival 5in-screen smartphones, but at 206g and 9.3mm nowhere near as much as you might imagine.

In design the Elephone P5000 looks exactly like a Samsung Galaxy device, and it even has a fingerprint sensor built into the Home button. Available in black or white with a silver-painted trim, this Android KitKat-powered slab feels sturdy and unbreakable, despite its removable plastic rear panel.



You'll find a Micro-USB charging port and headphone jack at the top, power and volume on the right side, and dual speakers at the bottom. A 16Mp camera with LED flash sits at the back, but there's no dedicated camera button.

A 5in full-HD IPS screen adorns the Elephone P5000, with a pixel density of 440ppi. We found it a little odd looking at an IPS screen on what felt like a Samsung phone, more used to seeing Samsung's favoured Super AMOLED in such a scenario. The display is very clear and with excellent viewing angles and true-to-life colours, but we were surprised to find it was set at 100 percent brightness. It's not a dim screen, but in very bright light you might wish you could ramp it up a little. Keeping at 100 percent will also eat through that battery.

Hardware and performance

Don't be fooled by the fact this smartphone has an octa-core processor; the 1.7GHz MediaTek MT6592

when paired with 2GB of RAM and Mali-450 graphics offered mid-range performance in our benchmarks. We also found the top half of the phone could become warm in use, even when all we were doing was using the camera.

In Geekbench 3 the Elephone P5000 turned in 442 points in single-core mode, and 2365 in multi-core. Its best SunSpider performance was 1172ms, and in GFXBench 3.0 it could handle only the T-Rex test – here it recorded a lowly 13fps. Those results put this Elephone P5000 slightly behind the UMI Zero in performance.

The Elephone is fitted with 16GB of storage as standard, plus you can add a microSD card up to 64GB in capacity.

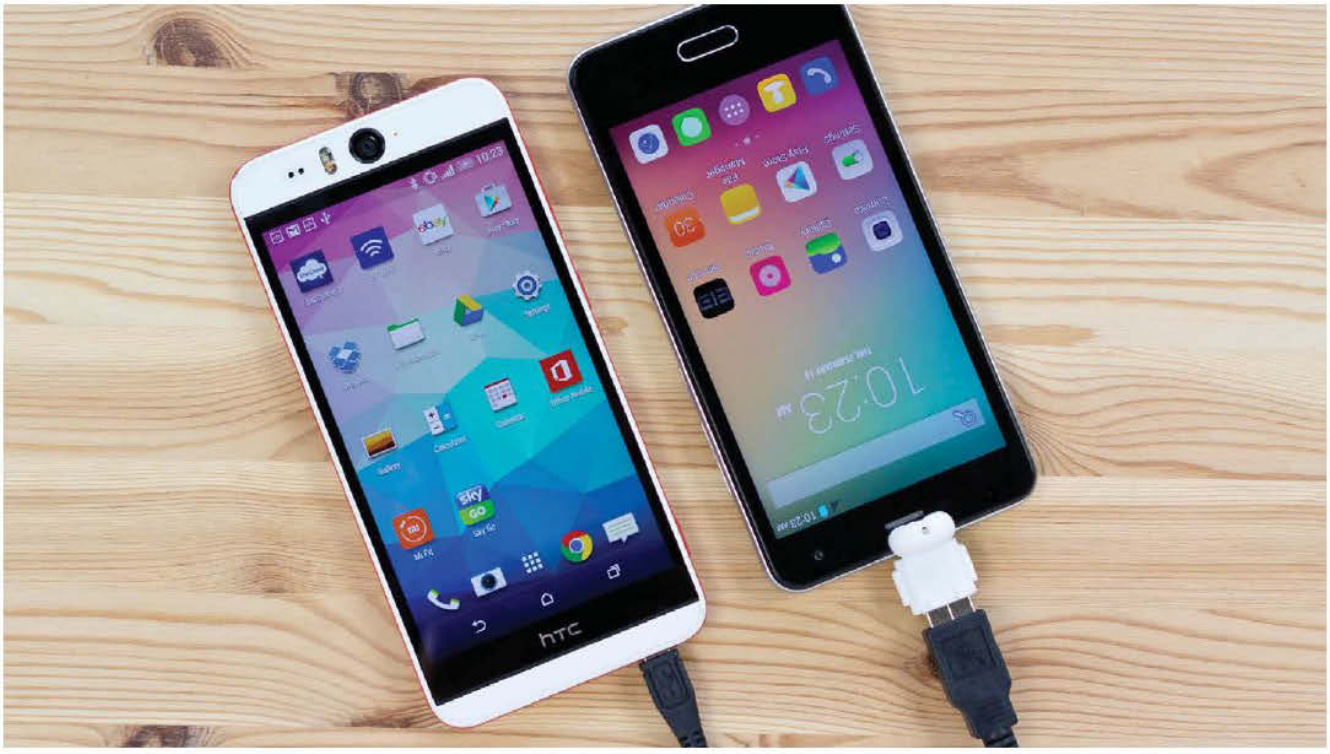
Battery life

The battery is the key selling point of this phone. Not only does it offer around twice the capacity

of standard Android phones at 5350mAh, but the Elephone P5000 supports OTG. This means that, using the supplied adaptor, you can create a Micro-USB to Micro-USB cable and attach it to another smartphone (or hard drive) and, if you're feeling really generous, use the Elephone as a power bank. We tried this with our HTC Desire Eye, which also supports OTG.

A concern with large-capacity batteries such as this is that they will take forever to recharge. Not so with the Elephone P5000: given the correct charger it can fill its own battery up to 70 percent in one hour. That's quite frankly astonishing.

We do have some concerns regarding this super four-day (45-day standby) mega battery, however. On receiving the phone from Coolicool the battery was totally flat. We charged it up, put it back into the box for a day, and when we took it out again to review the phone the battery was once again



completely flat. We recharged and factory reset the phone, and battery performance seems better since – but it's not at all what we were expecting.

Left on standby the P5000 consumes next to no power. Following the last charge we left it on standby for eight hours and returned to find it at 100 percent. But we then ran GFXBench T-Rex and the battery fell to 92 percent. We haven't finished our testing of this battery, but it appears to be brilliant provided that you don't use the phone – as soon as you switch on Wi-Fi or try to do anything battery life appears to be no better than that of any other Android phone.

Connectivity

A key consideration when buying phones from overseas is whether they are compatible with UK networks. The Elephone P5000 operates on 850/900/1800/1900MHz 2G and 900/1900/2100MHz 3G, which means it will be compatible with EE, Three, Vodafone and O2's 2G

and 3G networks, but there is no support for 4G.

As with many phones bought overseas the Elephone P5000 supports dual SIMs. This is becoming increasingly attractive in the UK, allowing you to separate work and pleasure yet carry just the one phone, although few dual-SIM handsets are officially available to buy here.

The Elephone's fingerprint scanner is swipe-operated (just like that on the Samsung Galaxy S5), and we found you had to swipe really slowly to get it to recognise a fingerprint. Samsung is rumoured to be bringing in an Apple-style touch-input fingerprint sensor in its upcoming S6, which to us seems like a better approach to fingerprint scanning.

As well as the aforementioned OTG support, the Elephone P5000 also boasts 802.11b/g/n Wi-Fi, Bluetooth 4.0, NFC and GPS.

Cameras

An 8Mp camera is fitted to the front of the Elephone P5000, which is useful for selfies and video chat. It

has a Face Beauty mode, although it doesn't offer a live preview.

At the rear is a 16Mp camera with an LED flash. There's support for HDR mode, face detection, smile shot, a 40-picture burst mode and more. It supports panorama, picture-in-picture, motion-tracking, multiple- beauty face, multi-angle shots and more. Video recording is supported at 1080p.

Software

Running Android 4.4.2 KitKat the Elephone P5000 has reasonably up-to-date OS software, although we'd like to have seen 4.4.4 (or 5.0, but Lollipop is only just rolling out to flagships). Although the Elephone P5000 is rooted and runs SuperSu (an app that allows advanced access management of

any apps that require root), it appears in the Settings menu that FOTA updates are available.

The software is fairly standard Android KitKat, with few additions. Several useful gestures are supported, although switched off by default. From the lock screen you can double-tap to wake the phone, or draw a letter or swipe in a particular direction to open an app of your choosing.

Verdict

On paper the Elephone P5000 is a great phone with an attractive selling price, plus its monster battery, fingerprint scanner and dual-SIM operation are all key selling points. In reality the battery life isn't as good as we had hoped (this could be due to a firmware issue or a fault with our sample), and the fingerprint scanner was sufficiently annoying to use that we probably wouldn't bother. Other aspects of this phone are all distinctly mid-range, but what more can you expect at £200?

Buying advice:
Dual-SIM phones

Dual-SIM smartphones let you use two SIMs in a single phone. We explain how that works

Dual-SIM smartphones let you use two SIMs in a single phone. Most people who use dual-SIM phones find the functionality useful for mixing work and pleasure, rather than carrying separate phones for their work- and personal contracts.

Dual-SIM phones are also useful for maintaining two personal contracts, however, whereby one might offer a good rate on calls and texts, and the other offers unlimited data. Or perhaps you frequently travel abroad, and would like to carry a UK SIM for

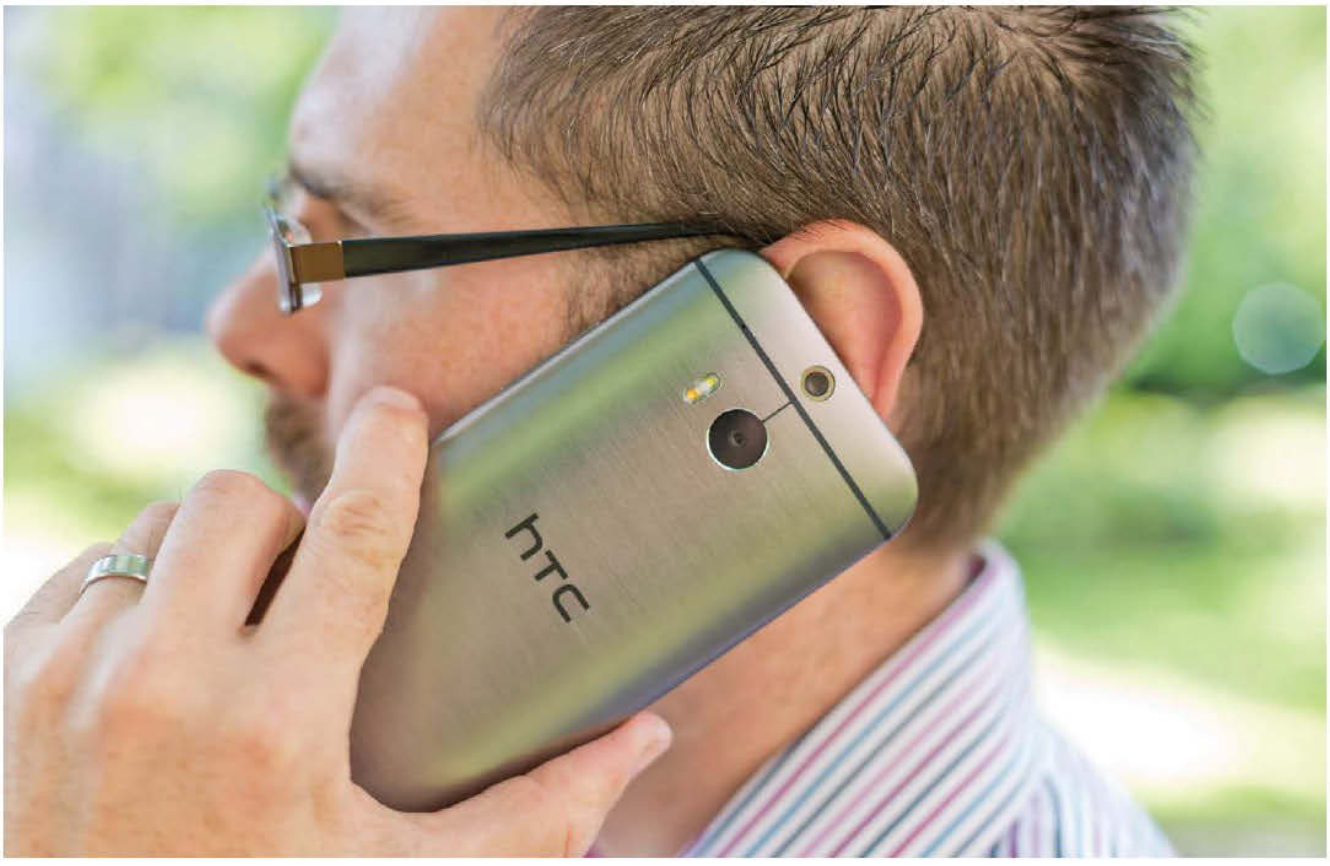
when you're at home and another that is local to the country you're visiting.

Whatever your reason for requiring a dual-SIM phone, a problem in the UK is that most smartphones do not include the functionality as standard. Indeed, hardly any of the phones we are sent for review are dual-SIM models, and even where dual-SIM versions are available they are rarely intended to go on sale in the UK.

Dual-SIM phones are incredibly popular outside the UK and in the developing world, but for some reason us Brits are being left out of the dual-SIM party. And we want in.

This is one reason why the grey market has become a popular solution for picking up a dual-SIM phone, but there are risks involved – read our advice on buying grey-market dual-SIM phones on page 77.

Another way you can find a dual-SIM phone is to search a site such as Amazon or eBay for 'dual-SIM



phone', 'dual-SIM Samsung' or 'dual-SIM Sony' and so on. In doing so you might find a dual-SIM version of the Galaxy S4 mini or Xperia Z3, for example. The Honor 6 is another phone that is available in dual-SIM format, just not officially so in the UK.

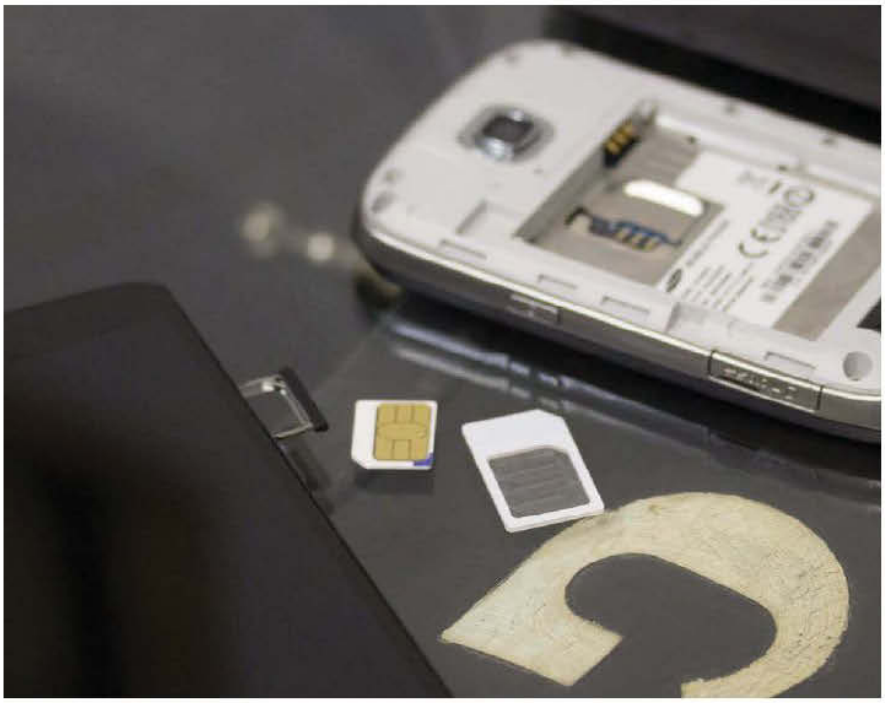
Having seen the standard single-SIM versions that are intended for UK sale we have no doubt that these are great phones, but having not personally laid our hands on the dual-SIM variants we're reluctant to recommend them.

Managing calls, texts and data

Something we've noticed when shopping for dual-SIM phones is that the manufacturer very rarely provides any information about the functionality other than it exists. It doesn't tell you how the dual-SIM functionality works in practice, nor whether both

SIMs support 3G, or even what size SIM cards they accept. As we've learned you can never assume: you'll need to contact the manufacturer or check spec tables, reviews or forums to find out this information.

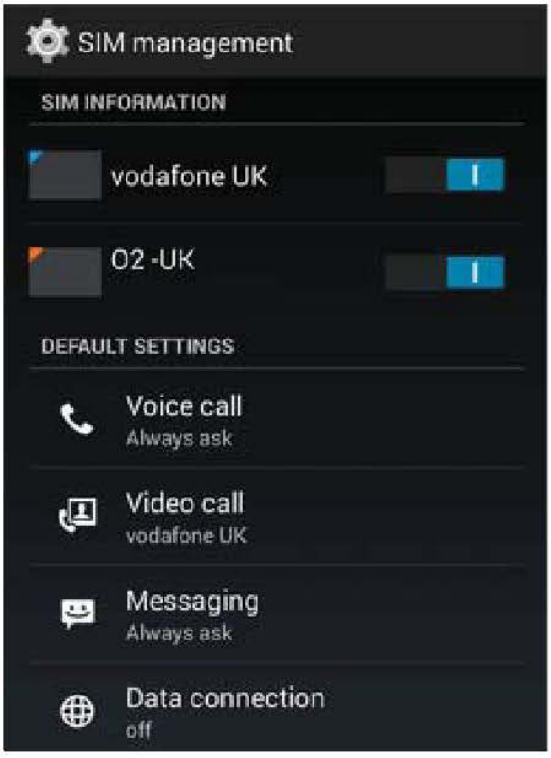
For that latter concern, as technology journalists who are always having to swap SIMs between the various phones we have in for review, we have found the best solution is to adopt a Nano-SIM for our personal smartphone, then pair it with an adaptor when we need to use it in a phone that supports Mini- or Micro-SIMs. SIM adaptors are very cheap, but some are better than others. We like the MediaDevil Simdevil, which comes with Nano- to Micro, Nano- to Mini and Micro- to Mini adaptors, plus a SIM tray ejector tool. It costs £3.97 from Amazon. If you're planning to stick with the phone, however, you can always request a new SIM of the correct size for free from your network operator, then swap over your number.



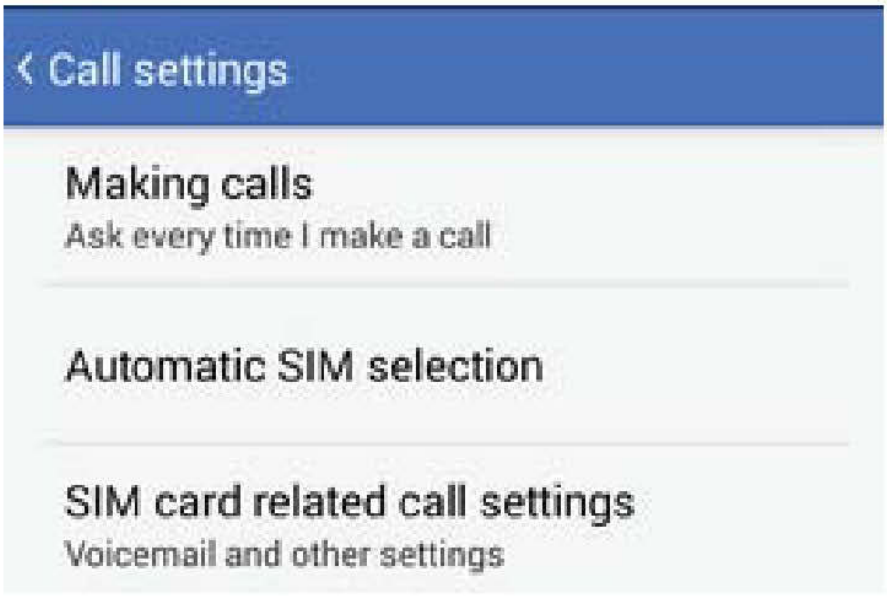
In all the dual-SIM phones we've tested both SIMs are on standby at all times (known as dual-standby phones), but you can actively use only one SIM at a time. This means that either SIM can accept a phone call or text at any time, without you having to actively swap between them or reboot the phone. However, if you get a call on one number while a call is active on the other, it won't start ringing in your ear or give you the option to put the first caller on hold – the call will simply not be successful.

Dual-active SIM phones also exist, however, which use two modems and allow you to receive calls on both numbers at once. We've not tested any dual-active phones, but some more recent examples allegedly include the dual-SIM variants of the HTC One M8, Sony Xperia Z3 and Samsung Galaxy S5 mini. (Always check before you buy, of course.)

If it's you who wants to make a call or send a text, Android has a standard SIM Management menu that lets you specify which SIM should be used for voice calls, video calls, messages and mobile data. You can either specify a particular SIM for each of these tasks, or leave the setting at Always ask. If you choose the latter, the next time you want to make a call or send a text you will be asked which SIM you want to use.

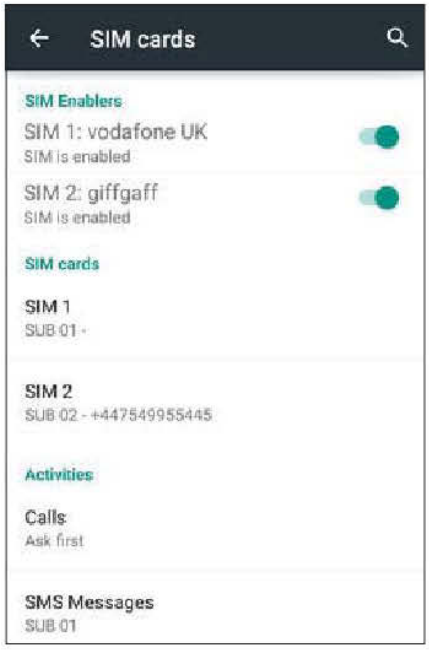


Motorola improves on this with its dual-SIM Moto G, with its Automatic SIM selection



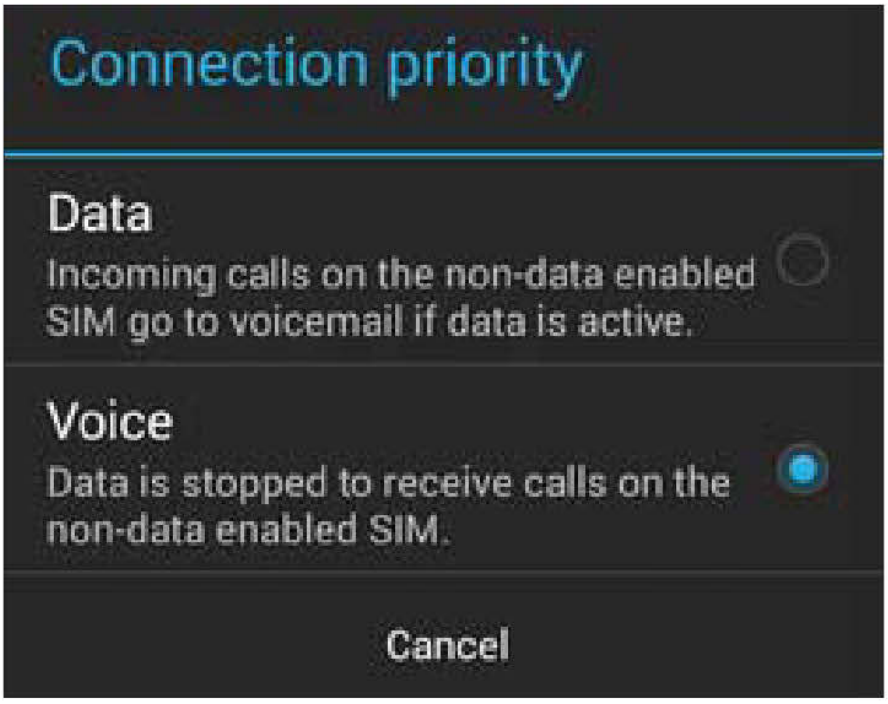
able to track your SIM usage and then suggest or automatically use a particular SIM for a certain mode of contact.

The data connection is where there seems to be a lot of confusion when it comes to dual-SIM phones. Whereas both SIM slots on some dual-SIM phones are capable of supporting 3G connections (for example the Moto G and the Elephone P5000), you can use 3G connection on only one SIM at a time. Unlike with calls and texts the data connection can't be on standby for both SIMs: you must specify which SIM you want to use rather than select one when prompted.



Of course, this isn't always the case, and the ZTE Blade S6 supports 3G/4G only on its first SIM slot, and you can't change the data connection for browsing the web or making video calls. You can still specify which SIM should be used for calls and texts, but things look a bit different in Lollipop.

By default, when you are using the data connection on one SIM and a phone call comes in to the other it will pause the data connection on the first. In the Moto G you'll find a Connection priority menu, which lets you specify that calls should instead go to voicemail instead of interrupting your browsing. There is no such option on the other dual-SIM phones we've tested, but it's not something we'd be likely to change in any case.



The Elephone P5000 momentarily threw us when we tried to switch the data connection from one SIM to the other. When we tried to change the data connection from O2 to Vodafone it popped up a message suggesting 3G wasn't supported by the Vodafone SIM. We knew it was, which suggested that the second SIM slot it resided in was capable of only 2G. In fact, we found that if we first changed the Video call setting from O2 to Vodafone we could then change the data connection without issue.

(Note that if your data connection is 'Off' this is because your Wi-Fi is switched on.)

Which SIM is configured to use the data connection is instantly evident from the navigation bar, with the SIM in slot 1 displayed in blue and the SIM in slot 2 displayed in green. One will be marked with G and the other 3G.

You can change these colours and whether or not the phone number is displayed within the SIM Management menu to make it more instantly obvious which is which. The Moto G and ZTE Blade S6 also lets you change the SIM card name.

Another issue when using dual-SIM phones is where your contacts are stored. We found that by default the contacts from both SIM cards are stored in the phonebook. If you'd rather see the contacts from only one SIM, tap the three dots icon at the bottom right of the screen (within the Contacts app) and choose 'Contacts to display'. You can then select All contacts, Gmail contacts, phone contacts or one of your two SIMs.

Usually when you add a contact you get a pop-up menu asking whether you want to store the contact on your phone memory, your SIM or your Google account. Here you'll now see two SIMs in the list rather than one. A quick way to turn this off and prevent you always having to choose is to open the SIM management menu, select Contact binding and then select a specific SIM.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